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Kemmerer Field Office

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Environmental Assessment for an Amendment to the Proposed PacifiCorp Monument to Opal Transmission Powerline Project, Lincoln and Sweetwater Counties, Wyoming

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MISSION STATEMENT

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WY-090-EA03-049

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ENVIRONMENTAL ASSESSMENT FOR AN AMENDMENT TO THE PROPOSED PACIFICORP MONUMENT TO OPAL TRANSMISSION POWERLINE PROJECT, LINCOLN AND SWEETWATER COUNTIES, WYOMING

Prepared for

Bureau of Land Management
Kemmerer Field Office
Kemmerer, Wyoming

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LIST OF ABBREVIATIONS AND ACRONYMS

AMSL	Above mean sea level
BLM	Bureau of Land Management
C.F.R.	*Code of Federal Regulations*
EA	Environmental assessment
EIS	Environmental impact statement
ESA	*Endangered Species Act*
FLPMA	*Federal Land Policy and Management Act of 1976*
GIS	Geographic information system
kV	Kilovolt
MOTPP	Monument to Opal Transmission Powerline Project
NEPA	*National Environmental Policy Act*
RMP	Resource Management Plan
ROD	Record of Decision
ROW	Right-of-way
SCS	Soil Conservation Service
TEP&C	Threatened, endangered, proposed, and candidate
TRC Mariah	TRC Mariah Associates Inc.
U.S.C.	*United States Code*
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WGFD	Wyoming Game and Fish Department
WNDD	Wyoming Natural Diversity Database
W.S.	*Wyoming Statutes*

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1.0 INTRODUCTION

1.1 BACKGROUND

On February 10, 2003, PacifiCorp submitted an application to the Bureau of Land Management (BLM), Kemmerer Field Office, for an amendment to its existing right-of-way (ROW) grant WYW-152817 for the 18.4-mi long, 230-kilovolt (kV) Monument to Opal Transmission Powerline Project (MOTPP). The MOTPP is an aboveground electric transmission line that will originate at the Monument Electric Substation, approximately 8 mi north of Granger, and will terminate at the new Opal Electric Substation, located approximately 3 mi north of Opal, Wyoming (Figure 1.1). The Proposed Action in this environmental assessment (EA) would allow PacifiCorp to not install raptor perch discouragers on approximately 28 (23%) of the new powerline structures on the MOTPP. The remaining 95 (77%) powerline structures would be equipped with the raptor perch discouragers, and all other components, designs, and specification included in the original MOTPP EA would be implemented in accordance with the approved ROW authorization and would not be affected by the outcome of this EA. The design of the approved powerline structures complies with *Suggested Practices for Raptor Protection on Powerline: The State of the Art in 1996* (Avian Power Line Interaction Committee 1996) and are inherently safe for perching raptors and minimizes electrocution hazards.

The original BLM-approved ROW application and EA (MOTPP EA [BLM 2002a]) was completed in late 2002 and included a commitment by PacifiCorp to equip 123 (100%) of the new powerline structures with raptor perch discouraging devices to minimize potential indirect impacts (predation) to mountain plovers (proposed for federal listing under the *Endangered Species Act* [ESA]) and several BLM-sensitive species from raptors perching on and hunting from the powerline structures. This amendment application (i.e., the request for reconsideration) was prompted by the submittal of additional information by PacifiCorp and TRC Mariah Associates Inc. (TRC Mariah) (2003) that was not available for inclusion in the original environmental analysis presented in the MOTPP EA (BLM 2002a).

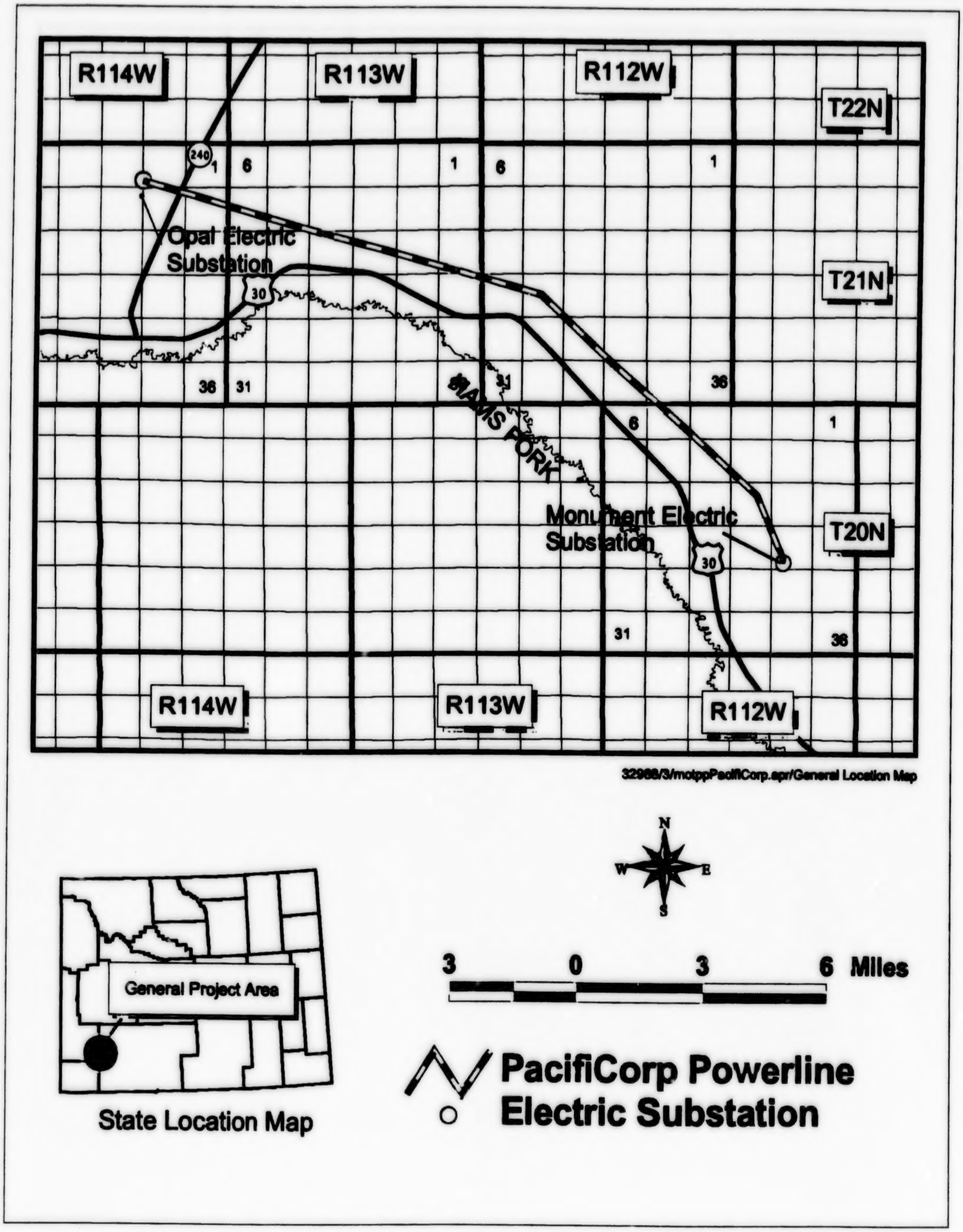


Figure 1.1 Location of Project Area.

The original MOTPP EA was released to the public on July 3, 2002. After a 30-day public comment period, revisions were completed and the EA was released on September 11, 2002, for a second 30-day public comment period. The Decision Record and Finding of No Significant Impact was issued by BLM on November 19, 2002, and the appropriate ROW grant for BLM-administered property was subsequently issued. BLM issued the Notice to Proceed for construction of the transmission powerline on February 21, 2003.

The original MOTPP EA analyzed the potential indirect impacts associated with the installation of raptor perch discouragers on all (100%) of the new powerline structures. Therefore, BLM has determined that an additional EA is required to address potential impacts of not installing the raptor perch discouragers on 28 (23%) new powerline structures. This document is that EA.

1.2 PURPOSE AND NEED

The purpose of the Proposed Action is to modify the PacifiCorp commitment to install raptor perch discouragers on all the new powerline structures associated with the MOTPP. The modification of the PacifiCorp commitment would still require the installation of raptor perch discouragers in areas where they would minimize potential impacts (predation) to certain BLM-sensitive species that may occur in the immediate project area. The Proposed Action is requested by PacifiCorp due to the preparation and submittal of new information on this subject that was not available at the time the original EA was prepared (PacifiCorp and TRC Mariah 2003). In addition, the Proposed Action is requested by PacifiCorp (a regulated private utility) to ensure that financial resources are wisely utilized on effective and biologically sound environmental mitigation measures. PacifiCorp also requests that standardized evaluation criteria be used to determine the specific conditions under which raptor perch discouragers would be used.

1.3 CONFORMATION WITH LAND USE PLANS AND RELATIONSHIP TO STATUTES, REGULATIONS, AND OTHER PLANS

1.3.1 *Federal Land Policy and Management Act of 1976*

The *Federal Land Policy and Management Act of 1976* (FLPMA), as amended (43 *United States Code* [U.S.C.] §1701 et seq.), and promulgating regulations found in Title 43 *Code of Federal Regulations* (C.F.R.), Part 2800, govern the federal approval, issuance, and amendment of ROW applications for facilities such as the Proposed Action.

1.3.2 *National Environmental Policy Act*

This EA is being prepared under the *National Environmental Policy Act* (NEPA), as amended (42 U.S.C. § 4321 et seq.), its implementing regulations found in Title 40 C.F.R. Part 1500-1508, and the BLM's NEPA handbook (H-1790-1) (BLM 1988). The purpose of an EA under NEPA regulations is to analyze the potential environmental impacts of a project and to determine if there would be any significant impacts from implementation of the Proposed Action. This EA assesses the environmental impacts of the Proposed Action and appropriate alternatives, including the No Action Alternative, and serves to guide the decision-making process. The Proposed Action includes not installing raptor perch discouragers on 28 (23%) of the new powerline structures associated with the previously approved MOTPP. Therefore, this EA will be tiered to the MOTPP EA; however, it will focus only on the potential indirect impacts of the new Proposed Action. All potential direct impacts have been thoroughly and adequately analyzed, will not change as a result of the Proposed Action, and will not be repeated in the document.

According to PacifiCorp's amendment application, the Proposed Action is needed to modify an existing mitigation measure. As discussed in BLM NEPA handbook H-1790-1 (BLM 1988), mitigation measures are actions developed in response to specific impacts identified during an environmental analysis process that may be implemented to avoid or reduce projected impacts. These mitigation measures should be appropriate for the specific project and should be practical, feasible, and effective in reducing the identified environmental impact. The mitigation measures should also be capable of being successfully implemented, taking into account site-specific environmental conditions and technological factors. In addition, the BLM NEPA handbook requires that an EA must describe the anticipated effectiveness of mitigation measures included in the EA and must assess potential residual impacts.

1.3.3 BLM Resource Management Plan and Existing NEPA Documents

The Proposed Action is in conformance with the Kemmerer Resource Area Resource Management Plan (RMP) and Record of Decision (ROD) approved April 1986 (BLM 1986a). The relevant management objective from the Kemmerer Resource Area RMP states:

> Rights-of-way would be issued incorporating surface reclamation stipulations and other mitigation measures. Restrictions and mitigation measures may be modified on a case-by-case basis.

The environmental analysis completed for the Proposed Action incorporates appropriate decisions, terms, and conditions of use as described in the RMP ROD. Use authorizations for that portion of the powerline that crosses BLM-administered land would be analyzed through the BLM ROW process.

Existing NEPA documents that may be related to the proposed project include the following:

- the MOTPP EA for the Proposed PacifiCorp MOTPP (BLM 2002a),
- the BLM draft environmental impact statement (EIS) Kemmerer Resource Area RMP (BLM 1985),
- the BLM Kemmerer Resource Area RMP and final EIS (BLM 1986b), and
- the BLM Kemmerer Resource Area RMP and ROD (BLM 1986a).

No other relevant site-specific EAs and EISs are available for the project area.

The BLM Kemmerer RMP (BLM 1986a) presents the management plan currently being administered in the project area. This EA is tiered to the original MOTPP EA (BLM 2002a) and BLM Kemmerer RMP and ROD (BLM 1986a). The original MOTPP EA provides site-specific information about the project area, and the Kemmerer RMP provides planning and objectives for the management of public lands in the BLM Kemmerer Resource Area, including the issuance of ROW grants and amendments (BLM 1986a).

1.3.4 Review of Selected Permits, Approvals, and Authorizations

No additional or new permits, approvals, and authorizations would be required by PacifiCorp prior to the implementation of the Proposed Action.

1.4 IDENTIFIED ISSUES

Due to the limited scope of the Proposed Action and the similarity of the Proposed Action to the original project, the BLM conducted only internal scoping for the Proposed Action. The only issue associated with the Proposed Action were identified during scoping for consideration during the preparation of this EA was indirect impacts to threatened, endangered, proposed, and candidate (TEP&C) species and potentially affected BLM-sensitive species.

All other issues and resources were previously identified, discussed, and analyzed in the MOTPP EA (BLM 2002a), will not be affected by the Proposed Action, and will not be discussed in this EA.

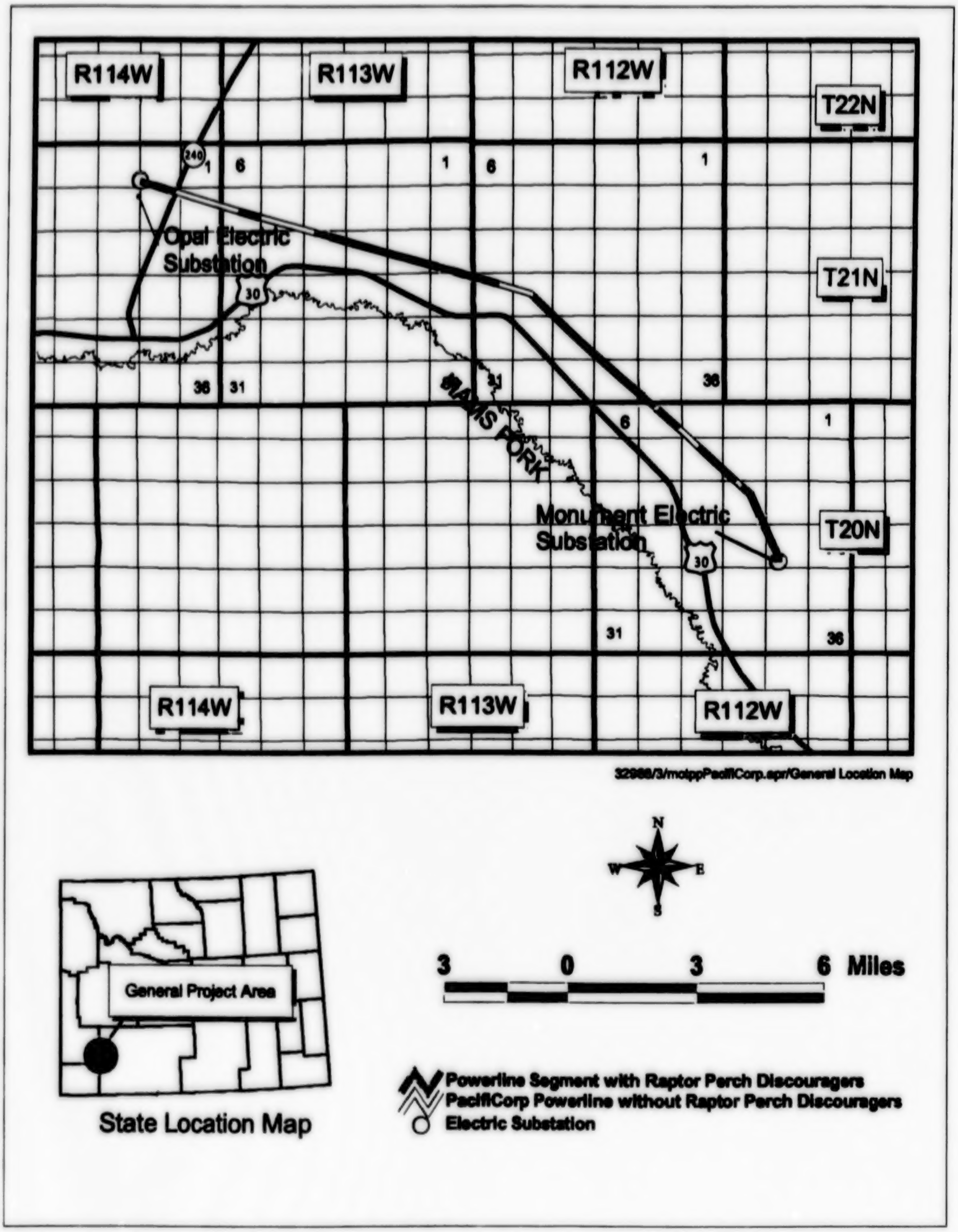
2.0 THE PROPOSED ACTION AND ALTERNATIVES

2.1 PROPOSED ACTION

The Proposed Action would involve not installing raptor perch discouragers on approximately 28 (23%) powerline structures of the MOTPP as illustrated on Figure 2.1. The remaining 95 (77%) powerline structures will still be equipped with raptor perch discouraging devices (refer to Figure 2.1) as specified in the MOTPP EA (BLM 2002a), Plan of Development (TRC Mariah 2002; BLM ROW WYW-152817).

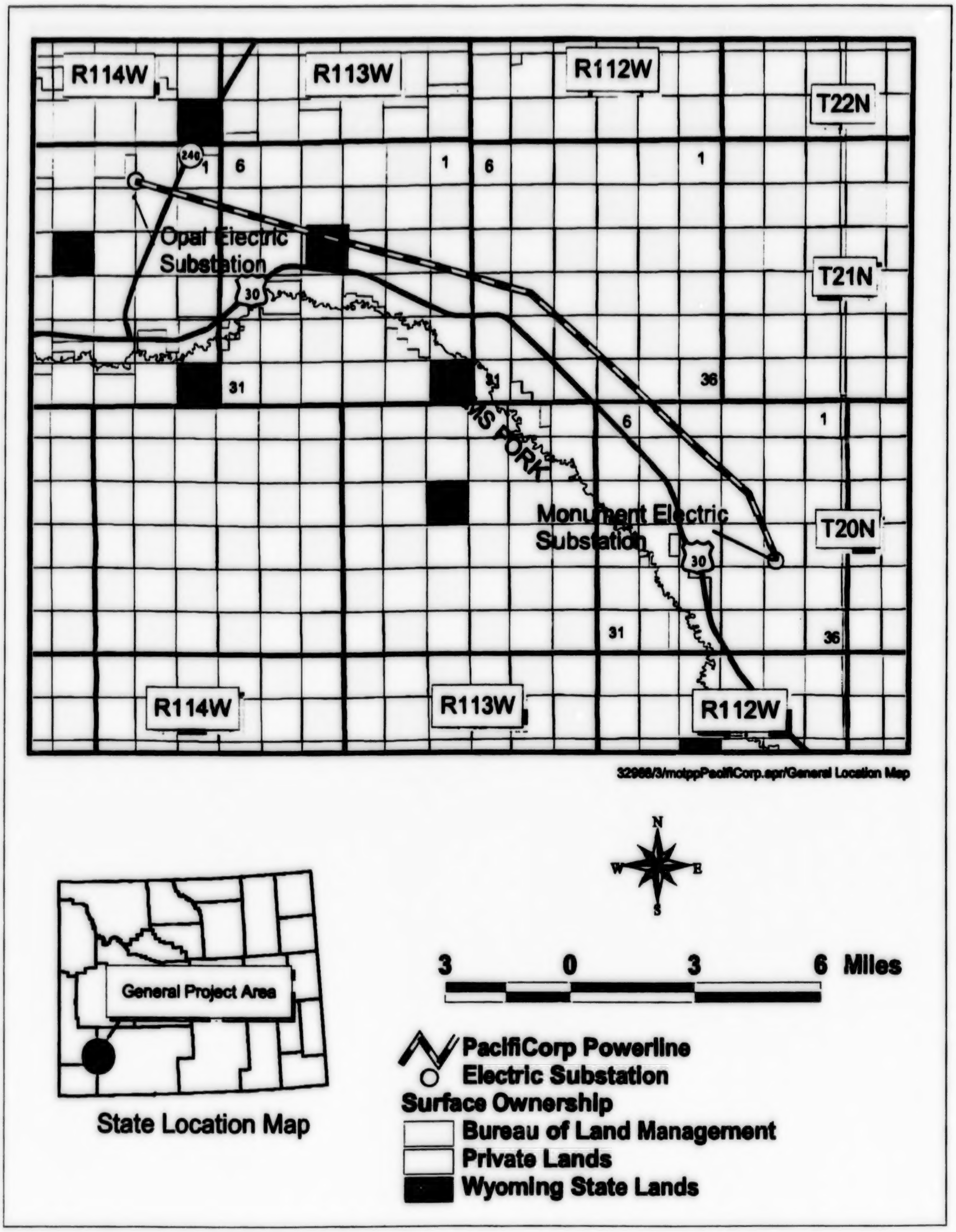
Under the Proposed Action, PacifiCorp would not install raptor perch discouragers on any new powerline structure that would be located more than 2 mi from any known greater sage-grouse lek or more than 0.25 mi from any white-tailed prairie dog town. This represents on 23% of the MOTPP area. However, a component of the MOTPP EA that will not be altered under the current Proposed Action is that raptor perch discouragers will continue to be installed on all new powerline structures that are located within 2 mi of any greater sage-grouse lek or within 0.25 mi of any white-tailed prairie dog towns. These two types of areas (i.e., within 2 mi of any greater sage-grouse lek and 0.25 mi of any white-tailed prairie dog town) will include 77% of the proposed length of the MOTPP, including 95 new powerline structures.

The MOTPP will cross portions of the following sections in Sweetwater County, Wyoming: Sections 15, 22, and 23, T20N, R112W. The MOTPP will cross portions of the following sections in Lincoln County, Wyoming: Sections 4, 5, 9, 10, and 15, T20N, R112W; Sections 19, 20, 21, 27, 28, 34, and 35, T21N, R112W; Sections 7, 8, 9, 13, 14, 15, 16, and 17, T21N, R113W; and Sections 2, 3, 11, and 12, T21N, R114W. The MOTPP is located on BLM-administered lands in Sections 4, 10, and 22, T20N, R112W; Sections 20, 28, and 34, T21N, R112W; Sections 8, 14, and 24, T21N, R113W; and Sections 2 and 12, T21N, R114W (refer to Figure 2.2).



32988/3/motppPacifiCorp.apr/General Location Map

Figure 2.1 Location of the Proposed Action.



32988/3/motppPacifiCorp.apr/General Location Map

Figure 2.2 Landownership in the Project Area.

2.2 APPLICANT-COMMITTED ENVIRONMENTAL PROTECTION MEASURES

Under the Proposed Action, no additional applicant-committed environmental protection practices would be required, and no existing applicant-committed environmental protection practices would be revised by PacifiCorp.

2.3 WORKFORCE REQUIREMENTS

The Proposed Action would result in no change in the number of estimated workers involved with the construction of the MOTPP as specified in the original EA (BLM 2002a).

2.4 PUBLIC ACCESS AND SAFETY DURING CONSTRUCTION

The Proposed Action would result in no changes to public access or safety as it relates to the construction and operation of the MOTPP as specified in the original EA (BLM 2002a).

2.5 NO ACTION ALTERNATIVE

Under the No Action Alternative, the previously approved MOTPP would be constructed as specified in the original EA (BLM 2002a), and PacifiCorp would install raptor perch discouragers on 100% of the new powerline structures affiliated with the MOTPP. The analysis of a No Action Alternative provides a benchmark, enabling decision-makers to compare the magnitude of environmental effects of each action alternative, including the Proposed Action.

2.6 OTHER ALTERNATIVES CONSIDERED

After careful consideration, it has been determined that, due to the limited scope of the Proposed Action (i.e., issues only related to raptor perch discouragers), there are no reasonable alternatives to the Proposed Action other than the No Action Alternative. Therefore, only the

Proposed Action and No Action Alternative will be analyzed in this EA. This EA will focus on the potential impacts of not installing raptor perch discouragers on 28 (23%) of the new MOTPP powerline structures. If the No Action Alternative is selected, PacifiCorp would proceed with installation of raptor perch discouragers on 100% of the new MOTPP powerline structures.

3.0 AFFECTED ENVIRONMENT

3.1 LOCATION, SETTING, AND HISTORICAL USE

The proposed project would be located in the western portion of the Green River Basin and east of the Wyoming Overthrust Belt Range (Blackstone 1988). The proposed project area is entirely located with the Green River drainage basin (Knight 1994) and is located primarily on the Chrisman and Opal Benches north and east of the Hams Fork River. The topography within the project area is relatively flat, with elevations ranging from 6,500 ft above mean sea level (AMSL) near the Monument Electric Substation to an elevation of approximately 6,700 ft AMSL near the Opal Electric Substation.

Sagebrush steppe is the ecological region in the vicinity of the proposed powerline and is composed primarily of Wyoming big sagebrush and desert shrub plant communities (Knight 1994; U.S. Geological Survey [USGS] 1996). Based upon 1:100,000 scale mapping, two vegetation types occur within 0.5 mi of the proposed powerline, including approximately 5,440 acres (46%) of Wyoming big sagebrush community and 6,336 acres (54%) of desert shrub community (a total of 11,776 acres) (USGS 1996). Of the 28 powerline structures that would not be equipped with raptor perch discouragers (i.e., the area associated with the Proposed Action), 51% would be located in desert shrub community and 49% would be located in Wyoming big sagebrush community (USGS 1996) (refer to Figure 3.1).

Typically, Wyoming big sagebrush communities are dominated by Wyoming big sagebrush, with some black sagebrush, greasewood, Gardner's saltbush, a small amount of rabbitbrush, a variety of bunchgrasses, short to mid-level grasses, prickly pear, and other forbs. The desert shrub community is typically dominated primarily by a variety of desert shrubs including greasewood, shadscale, fourwing saltbush, Gardner saltbush, winterfat, spiny hopsage, and kochia (Knight 1994).

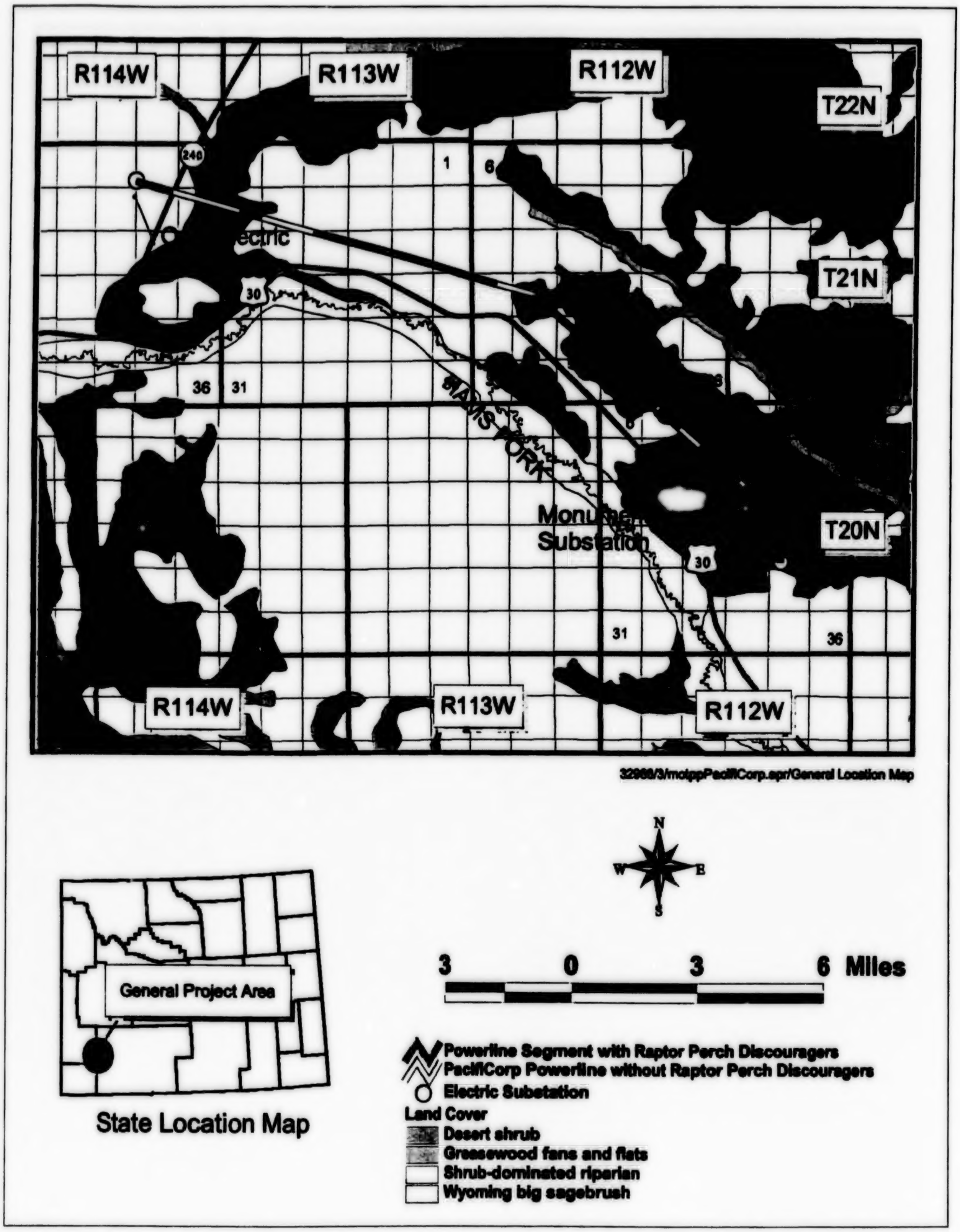


Figure 3.1 Land Cover near the Proposed Project Area.

Climatic conditions within the general project area are characteristic of the Green River and Great Basin areas of Wyoming (Soil Conservation Service [SCS] 1988). Average annual temperature of the general project area is 42°F, and record high and low temperatures are approximately 93°F and –33°F, respectively. Summer temperatures range widely, typically with warm sunny days and cool nights. On average, there are approximately 75 frost-free days a year (Martner 1986). The proposed project area receives approximately 7-9 inches of precipitation per year, and the prevailing winds are from the west-southwest (SCS 1988).

The proposed project area historically has been utilized for livestock grazing, oil and gas development, ROW development, and wildlife habitat.

3.2 CRITICAL ELEMENTS

In accordance with applicable regulations and policies (BLM 1988), the BLM conducted internal scoping of the Proposed Action utilizing the BLM resource specialists and the interdisciplinary team approach. This process determined the scope and the specific critical elements of the human environment to be addressed in this EA.

Critical elements of the human environment as defined by the BLM (1988), their status in the proposed project area, and their potential to be affected by the Proposed Action or alternatives are presented in Table 3.1. BLM resource specialists have determined that 13 of the 14 critical elements of the human environment are not present in the area or would not affected by the Proposed Action and are not analyzed in detail in this EA. Nine of the critical elements of the human environment were previously addressed in the MOTPP EA prepared by the BLM (BLM 2002a) and would not be affected by the Proposed Action or alternatives. As previously mentioned, this EA is tiered to the MOTPP EA and information contained in that document is incorporated by reference and will not be repeated in this EA. One critical element (TEP&C and BLM-sensitive species) is present in the proposed project area, may be affected by the Proposed Action, and is analyzed in detail in this EA.

Table 3.1 Critical Elements of the Human Environment.[1]

Element	Status Regarding the Proposed Action	Analyzed in Detail in This EA
Air quality	Not affected	No
Areas of critical environmental concern	Not present	No
Cultural resources	Not affected	No
Environmental justice-related issues	Not present	No
Farmlands (prime or unique)	Not present	No
Floodplains	Not affected	No
Invasive, non-native species (noxious weeds)	Not affected	No
Native American religious concerns	Not present	No
TEP&C and BLM-sensitive species	Potentially affected	Yes
Waste, hazardous or solid	Not affected	No
Water quality (surface water)	Not affected	No
Wetlands/riparian	Not affected	No
Wild and scenic rivers	Not present	No
Wilderness (wilderness study area and wilderness areas)	Not present	No

[1] Adapted from the BLM NEPA Handbook H-1790-1 (BLM 1988).

Based on an internal BLM review of the Proposed Action and additional existing information concerning the proposed project area, BLM resource specialists have determined that additional resources/elements of the environment such as vegetation and grazing, visual resources, wildlife, air quality, water quality (groundwater), recreation, soil resources, and solid wastes are determined to be present but would not be affected by the Proposed Action and are, therefore, not analyzed in detail in this EA. Other resources (e.g., environmental justice, geology, floodplains, health and safety, noise, socioeconomics, water rights, wild horses, landownership, land status, timber, and mineral resources) have also been determined not to be affected by the Proposed Action and are, therefore, not analyzed in detail in this EA.

Specific resources to be addressed in this EA include TEP&C and BLM-sensitive species.

3.3 AFFECTED RESOURCES

3.3.1 Introduction

The federal ESA (16 U.S.C. 1531-1543) protects listed threatened and endangered plant and animal species and their critical habitats. A list of federally listed TEP&C species that potentially occur in the vicinity of the proposed project was compiled by the Wyoming State Supervisor's Office of the U.S. Fish and Wildlife Service (USFWS) (2002a).

TEP&C species are those that have been specifically designated as such by the USFWS. Endangered species are those that are in danger of extinction throughout all or a significant portion of their range. Threatened species are those that are likely to become endangered in the foreseeable future throughout all or a significant portion of their range. Candidate species are those for which the USFWS has sufficient data to list as threatened or endangered but for which proposed rules have not yet been issued. Proposed species are those for which the USFWS has published proposed rules in the *Federal Register* for listing of the species but for which a final rule has not been adopted.

BLM-sensitive species are those species that may warrant future designation as a candidate species by the USFWS but for which insufficient data are currently available for such formal designation decision by the USFWS; these species are thereby designated and managed as a sensitive species under BLM special status species policies (BLM 1988). BLM management policies for state-designated sensitive species are specified in BLM Manual 6840 (BLM 2001) and BLM Wyoming Sensitive Species Policy and List (BLM 2002b). According to the 2002 BLM Wyoming Sensitive Species Policy and List:

> The intent of the sensitive species designation is to ensure actions on BLM-administered lands consider the welfare of these species and do not contribute to the need to list any other Special Status Species under the provisions of the ESA. Management requirements that apply to the species on the BLM

> Wyoming Sensitive Species List are to avoid or minimize adverse impacts and maximize potential benefits to species whose viability have been identified as a concern by reviewing programs and activities to determine their potential effect on sensitive species. (BLM 2002b)

3.3.2 TEP&C Species

Federal TEP&C species that occur in the vicinity of the MOTPP area are listed in Table 3.2. However, it has been determined through the scoping process that only black-footed ferrets and mountain plovers may be adversely impacted by the Proposed Action. Therefore, only black-footed ferrets and mountain plovers are discussed in detail in this EA. All other species were discussed in detail in the MOTPP EA (BLM 2002a), would not be affected by the Proposed Action, and are not discussed further is this EA.

Black-footed Ferret (*Mustela nigripes*). The black-footed ferret, a federally endangered species, was once distributed throughout the high plains of the Rocky Mountain and western Great Plains regions (Clark and Stromberg 1987; Forrest et al. 1985). Prairie dogs are the main food of black-footed ferrets (Sheets et al. 1972); however, few black-footed ferrets have been historically collected away from prairie dog towns (Forrest et al. 1985). The last known wild black-footed ferret population was discovered in the Pitchfork area near Meeteetse in northwest Wyoming in 1981. Since that time, no additional wild black-footed populations have been identified. Due to the fear that canine distemper would completely wipe out the Meeteetse population, all remaining black-footed ferrets were captured from the Pitchfork area and placed into a captive breeding project in 1985. There have been no sightings of any wild populations of black-footed ferrets since the Meeteetse population was originally found in 1981 (Wyoming Game and Fish Department [WGFD] 1997). The nearest known currently viable population of re-introduced black-footed ferrets is located in the Coyote Basin Black-footed Ferret Management Area, southwest of Dinosaur National Monument, approximately 120 mi southwest of the proposed project area.

Table 3.2 Federal TEP&C Species and Their Potential Occurrence Within the Proposed Project Area, 2002.[1]

Common Name	Scientific Name	Federal Status[2]	Expected Occurrence in Wyoming[1]	Potential Occurrence Within the Proposed Project Area[3]
Mammals				
Black-footed ferret	*Mustela nigripes*	E	Potential resident in prairie dog colonies	X
Canada lynx	*Lynx candensis*	T	Resident of forested areas	X
Gray wolf	*Canis lupis*	EX	Potential resident	X
Birds				
Bald eagle[4]	*Haliaeetus leucocephalus*	T	Nesting; winter resident; migrant	O
Mountain plover	*Charadrius montanus*	P	Grasslands statewide	U
Whooping crane	*Grus americana*	E	Resident; migrant	X
Yellow-billed cuckoo	*Coccyzus americanus*	C	Riparian areas west of the Continental Divide	X
Fish				
Bonytail chub	*Gila elegans*	E	Downstream resident of Green River system	CR
Colorado pikeminnow	*Ptychocheilus lucius*	E	Downstream resident of Green River system	CR
Humpback chub	*Gila cypha*	E	Downstream resident of Green River system	CR
Razorback sucker	*Xyrauchen texanus*	E	Downstream resident of Green River system	CR
Plants				
Ute ladies' tresses	*Spiranthes diluvialis*	T	Seasonally moist soils and wet meadows of drainages below 7,000 ft AMSL	X

[1] List of species provided by and determined by USFWS (2002a).

[2] Federal status provided by and determined by USFWS (2002a):
C = candidate.
E = listed as federally endangered.
EX = experimental.
T = listed as federally threatened.
P = proposed for listing as federally threatened (64 *Federal Register* 7587-7601, February 16, 1999).

[3] Species occurrence (professional opinion):
O = occasional; this species may occur in the project area during specific times of the year and may be locally common when suitable food is available; generally not present for extended periods.
U = uncommon; species may be present in MOTPP but in such low numbers or in such small and widely scattered populations that an encounter during construction operations is unlikely. The species may be present during significant periods of the year (e.g., breeding season, summer resident).
X = unlikely; there has been no recent historical record of the species's occurrence in the project area; probability of encountering the species during powerline construction is very unlikely.
CR = not present in project area but occur downstream of project area within the Colorado River system via the Green River.

[4] Proposed for removal from federal listing.

The powerline ROW contains white-tailed prairie dog colonies--the primary habitat for black-footed ferrets (refer to Figure 3.2). Therefore, as directed by the BLM, PacifiCorp mapped and surveyed, in their entirety, all white-tailed prairie dog colonies within 0.5 mi of the ROW that would be intersected by the proposed powerline ROW. In addition, for those white-tailed prairie dog colonies located within 0.5 mi of the ROW but that would not be intersected by the powerline ROW, PacifiCorp only mapped and surveyed those portions of the colonies located within 0.5 mi of the ROW (personal communication, July 9, 2002, with Andy Pils, BLM Wildlife Biologist, Kemmerer Field Office, Wyoming). To determine the potential presence of black-footed ferrets within the ROW, black-footed ferret surveys were conducted by USFWS-certified biologists in July 2002, in accordance with USFWS (1989) black-footed ferret survey guidelines. Results of all prairie dog town mapping efforts and black-footed ferret surveys were compiled and submitted to the BLM (TRC Mariah 2002a). No black-footed ferrets or their sign were identified, and the result of these surveys were accepted by the BLM.

Mountain Plover (*Charadrius montanus*). The mountain plover is proposed for federal listing as threatened. It inhabits the high, dry short-grass plains east of the Rocky Mountains (Armbruster 1983), as well as the sagebrush grasslands throughout Wyoming (WGFD 1999). Mountain plovers are documented as breeding throughout many areas in Wyoming (WGFD 1999). Parrish et al. (1993) noted that mountain plover nests were found in areas with at least 30% bare ground, where vegetation was short (<4 inches) in spaced clumps or mats (e.g., cushion plants), and where terrain was flat or less than 3%. Mountain plover breeding/nesting habitat is often associated with active prairie dog towns (USFWS 2002b), as well as other areas with short vegetation and relatively flat terrain. In Colorado, the mountain plover diet is composed of 99.7% arthropods, with beetles, grasshoppers, crickets, and ants the most important food items (Baldwin 1971). Breeding bird surveys between 1966 and 1987 show an overall decline in the continental population of mountain plovers (U.S. Forest Service 1994a, 1994b). Probably the most important reasons for the decline of the mountain plover are human impacts and habitat alteration on breeding grounds and degradation in the quality of wintering habitats (e.g., southern Texas, California) (Knopf 1994,

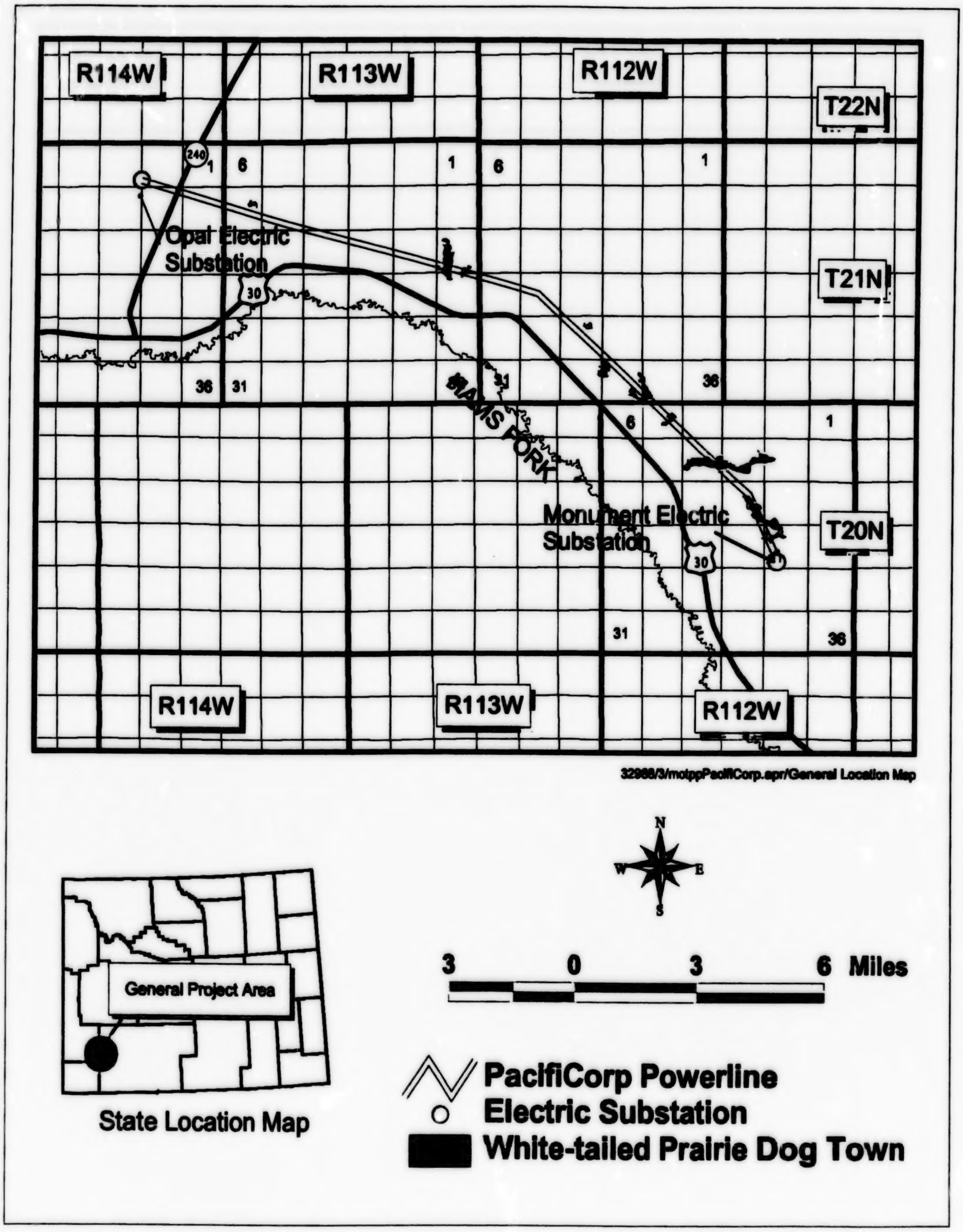


Figure 3.2 White-tailed Prairie Dog Habitat.

1996). Loss of breeding habitat due to cultivation and prey base declines resulting from pesticide use are also threats to mountain plover survival (Wiens and Dyer 1975). Cattle often maintain the open grass habitat favored by mountain plovers, so livestock grazing may benefit the species (Klipple and Costello 1960). Mountain plover adults, juveniles, and eggs are taken by both terrestrial predators (such as thirteen-lined ground squirrel, fox, and coyote) and avian predators (such as Swainson's hawk, loggerhead shrike, and prairie falcon) (Knopf 1996).

Unmitigated disturbance activities within potential nesting habitat may exacerbate the decline of this species. However, surveys for nesting mountain plovers and implementation of appropriate mitigation measures (including spatial and/or temporal avoidance of mountain plover nests) minimizes impacts to mountain plovers from development or surface-disturbing activities.

A portion of MOTPP area is composed of desert shrub habitat with areas that are relatively devoid of vegetation. Portions of this vegetation community may provide suitable nesting and foraging habitat for mountain plover. Potential mountain plover habitat was mapped (and by USFWS definition, which includes all white-tailed prairie dog towns) and is illustrated on Figure 3.3. A total of approximately 633 acres of potential mountain plover habitat is located within approximately 0.5 mi of the proposed ROW; this represents approximately 5.2% of the total area within approximately 0.5 mi of the proposed ROW. Mountain plover observations have also been recorded approximately 5 mi north of the proposed ROW (Wyoming Natural Diversity Database [WNDD] 2003). To determine the potential presence of mountain plovers within the ROW, mountain plover surveys were conducted by qualified biologists in May 2003 in accordance with USFWS (2002b) mountain plover survey guidelines. Survey results were compiled and submitted to the BLM (TRC Mariah 2003). No mountain plovers were identified, and the result of these surveys were accepted by the BLM.

Red-tailed Hawks (*Buteo jamaicensis*). Red-tailed hawks are neither a TEP&C species nor a BLM-sensitive species; however, it is also possible that, under the Proposed Action, more red-tailed hawks may utilize those powerline structures that would not be equipped with

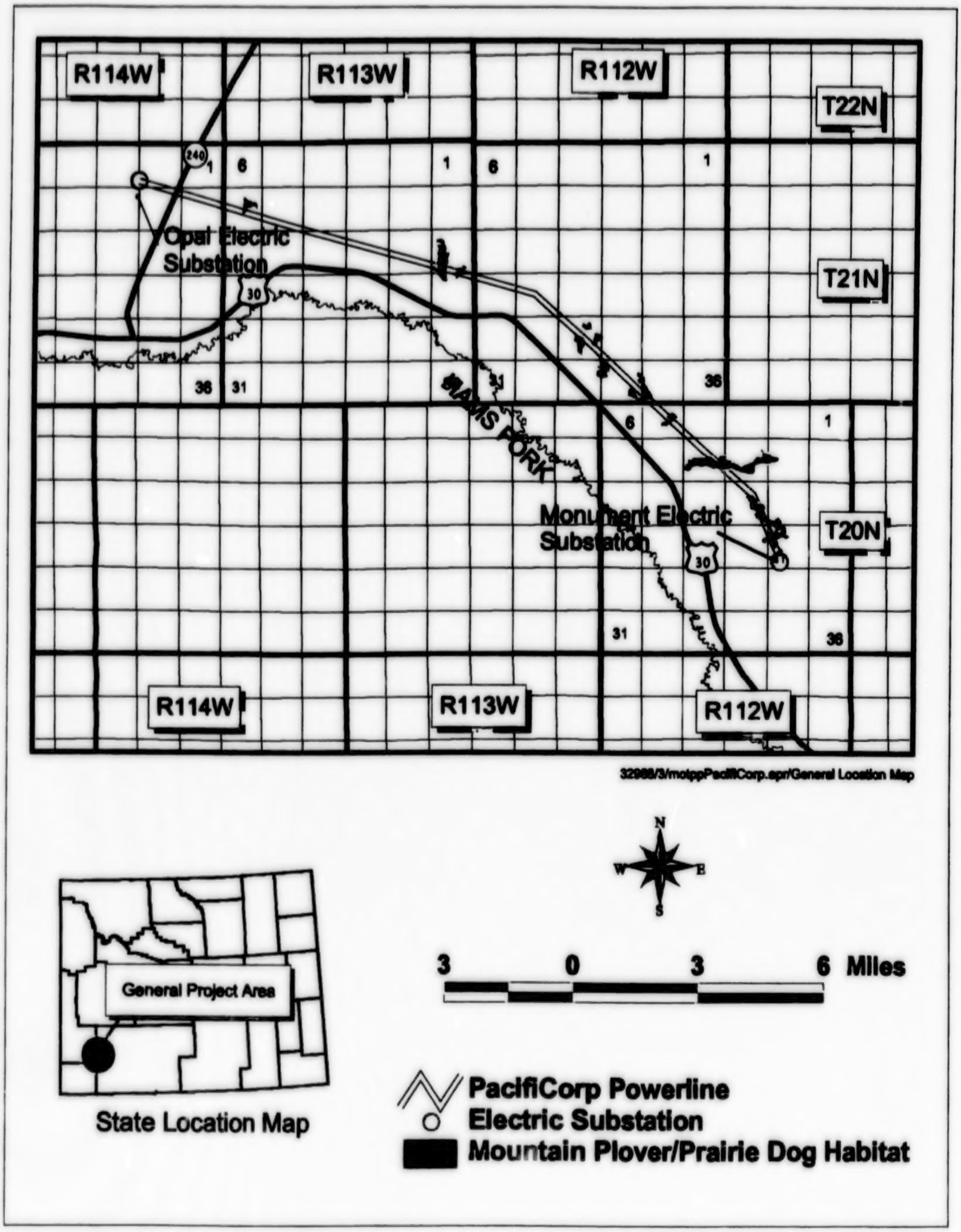


Figure 3.3 Mountain Plover Habitat.

the raptor perch discouragers for hunting perches and possibly nesting sites. This situation may have an adverse affect on TEP&C and BLM-sensitive species. Therefore, baseline information on red-tailed hawks is presented herein for utilization in Chapter 4 of this EA.

Red-tailed hawks (*Buteo jamaicensis*) is a common year-round resident of most parts of Wyoming, with a noticeable reduction in numbers in the winter (WGFD 1999). Red-tailed hawks are known to nest in a wide variety of natural (e.g., cliffs, buttes, trees) and man-made structures (e.g., buildings, powerline structures, and artificial nest platforms) (Preston and Beane 1993). In Wyoming and Montana, red-tailed hawks nest in several habitat types, but nests were most numerous in riparian areas (Tesky 1994). The closest documented red-tailed nest to the project area is located approximately 2 mi southeast of the powerline ROW along the Hams Fork River (a riparian area) (BLM n.d.) (refer to Figure 3.4). Red-tailed hawks prey on a wide variety of items including medium to small mammals, birds, and reptiles (Preston and Beane 1993). In Wyoming, red-tailed hawks primarily feed on medium to small mammals, which account for as much as 93% of the prey items taken (Williams and Matteson 1973; Tesky 1994). Most hunting (60-80%) by red-tailed hawks is done from elevated perches (Preston and Beane 1993). Reliance on this hunting method presumably relates to the relatively low length to width ratio of red-tailed hawk wings, making this species poorly adapted for hunting in flight (Preston and Beane 1993).

3.3.3 BLM-Sensitive Species

Based on habitat preference and geographic location, several BLM-sensitive species may potentially occur in the general MOTPP area (BLM 2002a) (refer to Table 3.3). However, only dwarf shrew, pygmy rabbit, white-tailed prairie dog, Idaho pocket gopher, ferruginous hawk, greater sage-grouse, burrowing owl, sage thrasher, loggerhead shrike, Brewer's sparrow, and sage sparrow may be potentially impacted by the Proposed Action and are discussed and analyzed in detail in this EA. Pygmy rabbit, greater sage-grouse, sage thrasher, Brewer's sparrow, and sage sparrow are highly dependant upon the presence of sagebrush

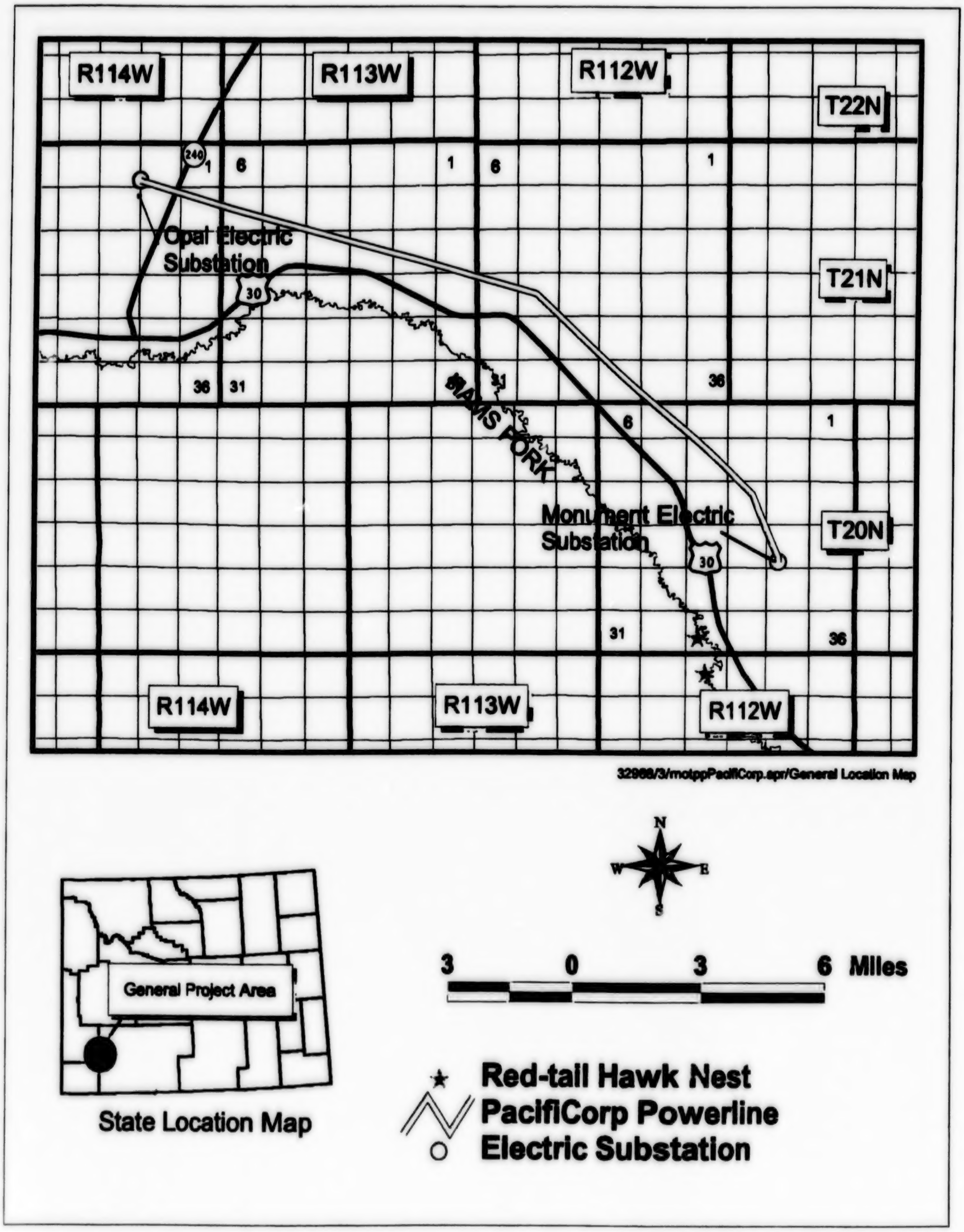


Figure 3.4 Red-tailed Hawk Nests.

Table 3.3 Potential BLM-Sensitive Species and Habitat Preference, Kemmerer Field Office, MOTPP, 2002.[1]

Species Common Name	Scientific Name	Habitat	Addressed in Detail in this EA
Mammals			
Dwarf shrew	*Sorex nanus*	Mountain-foothill shrub, grasslands	X
Long-eared myotis	*Myotis evotis*	Conifer and deciduous forests, caves, and mines	
Pygmy rabbit	*Brachylagus idahoensis*	Basin-prairie and riparian shrub	X
White-tailed prairie dog	*Cynomys leucurus*	Basin-prairie shrub, grasslands	X
Idaho pocket gopher	*Thomomys idahoensis*	Shallow stony soils	X
Birds			
Ferruginous hawk	*Buteo regalis*	Basin-prairie shrub, grassland, rock outcrops	X
Greater sage-grouse	*Centrocercus urophasianus*	Basin-prairie shrub, mountain-foothill shrub	X
Long-billed curlew	*Numenius americanus*	Grasslands, plains, foothills, wet meadows	
Burrowing owl	*Athene cunicularia*	Grasslands, basin-prairie shrub	X
Sage thrasher	*Oreoscoptes montanus*	Basin-prairie shrub, mountain-foothill shrub	X
Loggerhead shrike	*Lanius ludovicianus*	Basin-prairie shrub, mountain-foothill shrub	X
Brewer's sparrow	*Spizella breweri*	Basin-prairie shrub	X
Sage sparrow	*Amphispiza billineata*	Basin-prairie shrub, mountain-foothill shrub	X
Amphibians			
Great Basin spadefoot	*Spea intermontana*	Spring seeps, permanent and temporary waters	
Plants			
Nelson's milkvetch	*Astragalus nelsonianus* -or- *Astragalus pectinatus* var. *platyphyllus*	Alkaline clay flats, shale bluffs and gullies, pebbly slopes, and volcanic cinders in sparsely vegetated sagebrush, juniper, and cushion plant communities; 5,200-7,600 ft	
Trelease's milkvetch	*Astragalus racemosus* var. *treleasei*	Sparsely vegetated sagebrush communities on shale or limestone outcrops and barren clay slopes; 6,500-8,200 ft	
Entire-leaved peppergrass	*Lepidium integrifolium* var. *integrifolium*	Sparsely vegetated and seasonally wet clay flats, greasewood communities on clay hummocks, and moist alkaline meadows; 6,200-6,770 ft	
Large-fruited bladderpod	*Lesquerella macrocarpa*	Gypsum-clay hills and benches, clay flats, and barren hills; 7,200-7,700 ft	
Gibbens' beardtongue	*Penstemon gibbensii*	Sparsely vegetated shale or sandy-clay slopes; 5,500-7,700 ft	
Beaver Rim phlox	*Phlox pungens*	Sparsely vegetated slopes on sandstone, siltstone, or limestone substrates; 6,000-7,400 ft	
Tufted twinpod	*Physaria condensata*	Sparsely vegetated shale slopes and ridges; 6,500-7,000 ft	
Dorn's twinpod	*Physaria dornii*	Dry, calcareous-shaley soils on slopes and ridges with mountain mahogany and rabbitbrush; 6,500-7,200 ft	
Rocky Mountain twinpod	*Physaria saximontana* var. *saximontana*	Sparsely vegetated rocky slopes of limestone, sandstone, or clay; 5,600-8,300 ft	
Green River greenthread	*Thelesperma caespitosum*	White shale slopes and ridges of the Green River Formation; 6,300 ft	

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[1] Based on BLM (2001).

plant communities (i.e., sagebrush obligate species) (Nicholoff 2003; Clark and Stromberg 1987).

Dwarf shrew, Idaho pocket gopher, pygmy rabbit, white-tailed prairie dog, and burrowing owl nest underground or spend a portion of their life underground (Nicholoff 2003; Clark and Stromberg 1987).

3.3.3.1 Mammals

Dwaft shrews (*Sorex nanus*) are present in relatively small isolated populations where suitable historic habitats exist. Their habitat include alpine rubble above 13,000 ft AMSL; however, they are sometimes found in arid habitats such as shortgrass prairies, dry stubble fields, and pinyon-juniper at lower elevations. They have also been found in alkaline sage flats in eastern Sweetwater County. They may potentially occur in the western and southern portions in Wyoming. Little is known about their behavior or habitats; however, they nest in burrows, and captive dwarf shrews have been observed to feed on carrion of several species of small mammals and soft bodied spiders and insects (Clark and Stromberg 1987). Dwarf shrews have been observed in latilong 22, which includes the project area (WGFD 1999); however, there are no records of dwarf shrews occurring within 5 mi of the project area (WNDD 2003).

Pygmy rabbits (*Brachylagus idahoensis*) occur in portions of southwestern Wyoming in Lincoln, Sublette, Uinta, and Sweetwater Counties (USGS 1996). Pygmy rabbits are a sagebrush obligate species and are limited to areas where big sagebrush grows in dense, tall stands. In Southwestern Wyoming, big sagebrush only reaches adequate height along intermittent streams and occasionally along riparian areas (Clark and Stromberg 1987). Pygmy rabbits feed primarily on sagebrush (as much as 99%), and grasses become more important in the middle to late summer (30-40% of their diet). A variety of predators (e.g., foxes, weasels, coyotes, and hawks) may prey upon pygmy rabbits (Clark and Stromberg 1987). Pygmy rabbits have been observed nesting in latilong 22, which includes the project area (WGFD 1999). There have been two historic sightings of pygmy rabbits within 5 mi of

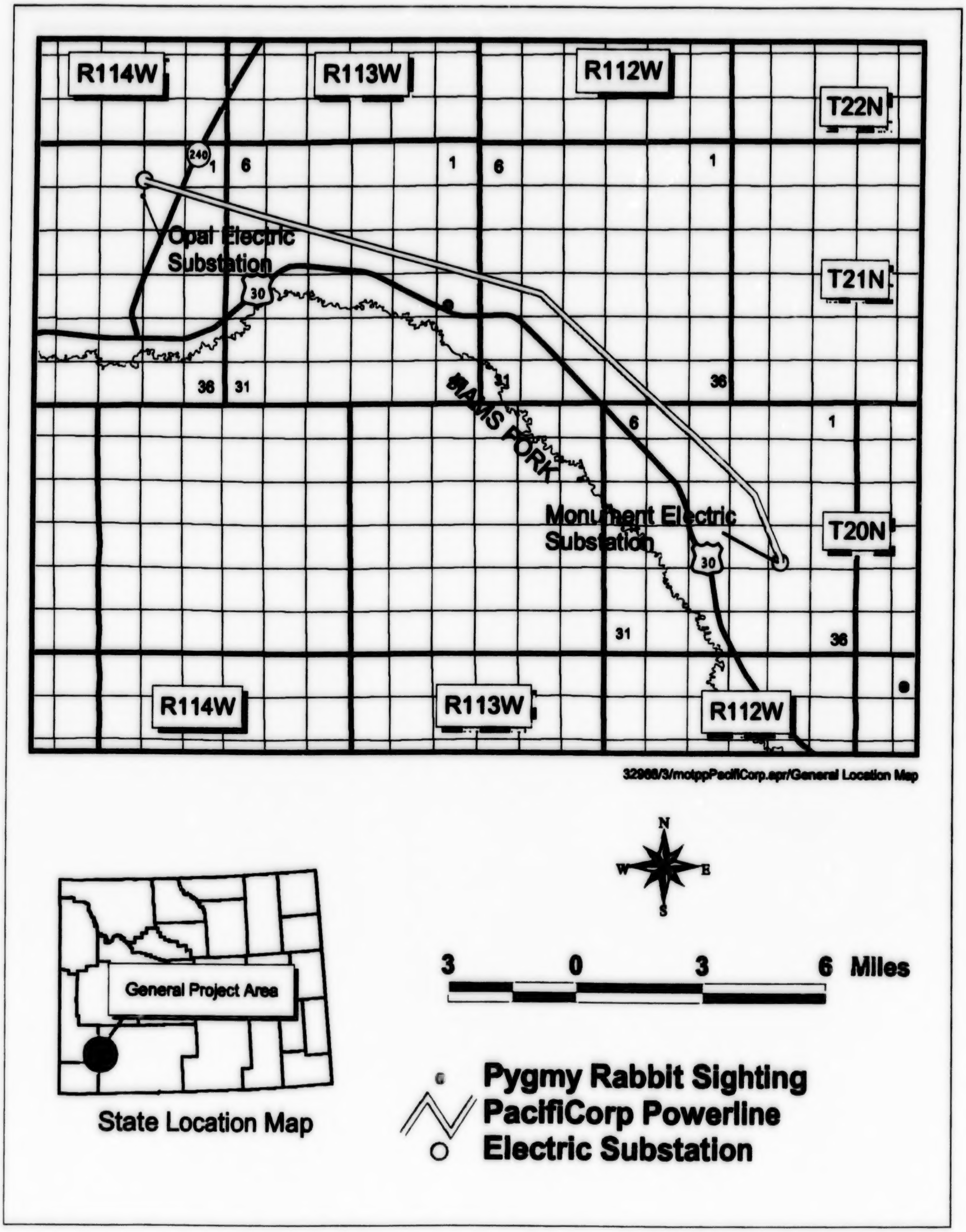


Figure 3.5 Historic Pygmy Rabbit Sightings.

the project area (WNDD 2003). Both of these 1994 sightings occurred in Wyoming big sagebrush plant communities and are illustrated on Figure 3.5.

White-tailed prairie dogs (*Cynomys leucurus*) are widely distributed throughout a majority of Wyoming. Colonies may reach several hundred acres in size, although most colonies are much smaller. These rodents feed mainly on annual forbs and other plants that tolerate repeated long-term grazing. White-tailed prairie dogs are the primary food source for many predators such as hawks, owls, eagles, badgers, long-tailed weasels, skunks, foxes, and coyotes (Clark and Stromberg 1987). White-tailed prairie dogs are classified as a non-game wildlife species by the WGFD and as pests under the authority of the Wyoming Department of Agriculture (*Wyoming Statutes* [W.S.] §§ 11-5-101 through 11-5-119 [*Weed and Pest Control Act of 1973*]). White-tailed prairie dogs may be hunted year-round in most of Wyoming without any restrictions or license from the WGFD.

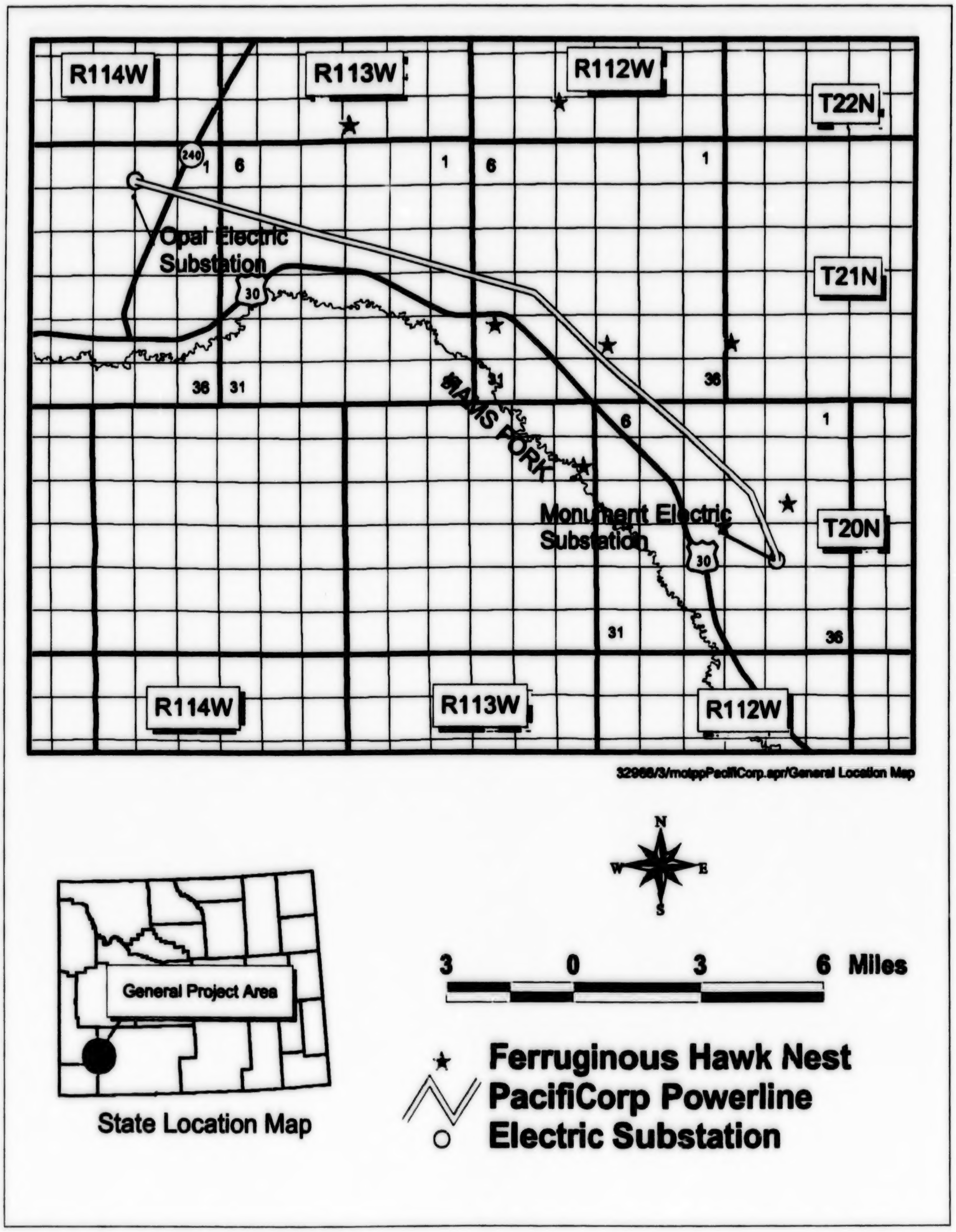
All active white-tailed prairie dog towns within 0.5 mi of the powerline ROW were mapped in their entirety, and the locations of these towns are illustrated on Figure 3.2. Currently, a total of approximately 589 acres of white-tailed prairie dog towns is located within approximately 0.5 mi of the powerline ROW; this represents approximately 5% of the total area within 0.5 mi of the proposed ROW.

Idaho pocket gophers (*Thomomys idahoenis*) occur in portions of southwestern Wyoming in Lincoln, Sublette, and Uinta Counties. They are found in shallow, stoney soils in sagebrush, sagebrush-grasslands, and mountain meadows, and they feed on roots and plant parts of forbs, grasses, and herbs. Little is known about their behavior or habitats; however, it is expected to be similar to that of northern pocket gopher (Clark and Stromberg 1987). Idaho pocket gophers have been observed in latilong 22, which includes the project area (WGFD 1999); however, there are no records of Idaho pocket gophers occurring within 5 mi of the project area (WNDD 2003).

3.3.3.2 Birds

Ferruginous hawks (*Buteo regalis*) are a common summer resident in Wyoming, but a few may remain year-round. They feed primarily on small mammals (e.g., ground squirrels, pocket gophers, rabbits, and prairie dogs) and occasionally birds such as horned larks and meadow larks (Snow 1981). They are usually encountered on the prairies, badlands, and butte country and will nest on the ground, trees, cliffs, and buttes (Snow 1981; Williams and Matteson 1973). They have also been known to nest on numerous man-made structures including chimneys, windmills, pumping structures, powerline structures, abandoned buildings, sheepherder monuments, and spoil piles (Call 1978). Ferruginous hawks have been documented nesting in general project area, and four ferruginous nests have been identified within 4.0 mi of the powerline ROW (refer to Figure 3.6). No historical monitoring of these nests has occurred over the past several years (personal communication, February 27, 2002, with Andy Pils, Wildlife Biologist, BLM, Kemmerer Field Office). However, during the entire 2003 raptor breeding season, the powerline ROW and a 1.0-mi buffer around the powerline ROW was monitored for breeding raptors. Several adult ferruginous hawks were observed in the project area, but none of the ferruginous hawk nests were active (personal communication, June 2, 2003, with Lara Oles, Wildlife Biologist, BLM, Kemmerer Field Office).

Greater sage-grouse (*Centrocercus urophasianus)* are a sagebrush-obligate species and a year-round resident of Wyoming. Greater sage-grouse utilize sagebrush for a source of food and breeding and non-breeding cover. In addition to sagebrush, greater sage-grouse also feed on other forbs and insects. The greater sage-grouse has experienced a decline in population throughout much of its historic range. Despite declines in greater sage-grouse populations, Wyoming still has one of the largest remaining greater sage-grouse populations in the U.S. (Connelly et al. 2000). In southwestern Wyoming, greater sage-grouse populations declined during the 1980s and early/mid-1990s, and populations then experienced a modest recovery from 1996 to 1998 that coincided with increased precipitation and possibly improved sagebrush and insect production. Since 1998, the greater sage-grouse population in this area



32988/3/motppPacifiCorp.apr/General Location Map

Figure 3.6 Ferruginous Hawk Nests.

has continued its previous decline (personal communication, July 11, 2002, with Tom Christensen, Biologist, WGFD, Green River, Wyoming).

Large portions of the general MOTPP area contain suitable habitat for greater sage-grouse; however, significant portions of the suitable greater sage-grouse habitat have been fragmented by existing oil and gas development, pipelines, and powerlines.

There are five known greater sage-grouse leks within 2 mi of the powerline ROW (refer to Figure 3.7) (BLM n.d.; WGFD n.d.). The closest lek is located approximately 0.25 mi from the powerline ROW. WGFD data indicates that this lek has not been active from 1990 to 2003 (WGFD n.d.). Only limited historical male greater sage-grouse lek attendance data are available from the BLM and WGFD for the other leks within the general project area (Table 3.4). Based on the available data, no male greater sage-grouse were observed in 2001, 2002, or 2003 at any of the monitored leks. In 1998, the lek located in Section 3, T21N, R113W, recorded its highest attendance of male greater sage-grouse over the past 6-year monitoring period with 10 individuals. There are several possible explanations for the lack of activity at greater sage-grouse leks. Tom Christensen, WGFD biologist in Green River, Wyoming, indicates that a recent drought in southwest Wyoming may have contributed to some of the decline in greater sage-grouse numbers (personal communication, July 11, 2002). It should also noted that most of these leks are located within approximately 0.25 mi of active oil and gas wells or associated access roads. According to Connelly et al. (2002), oil and gas development may have had a negative impact on greater sage-grouse populations due in part to habitat loss and fragmentation and noise during the greater sage-grouse's breeding season.

The greater sage-grouse is the only BLM-sensitive avian species that is also managed as an upland game bird species by the WGFD and is hunted throughout most of Wyoming. The powerline ROW is located within the southeastern portion of WGFD Upland Game Bird Management Area 4. In 2001 (the last year data are available), Management Area 4 recorded a total of 368 greater sage-grouse hunters, 664 hunt days, and a harvest of 689 greater

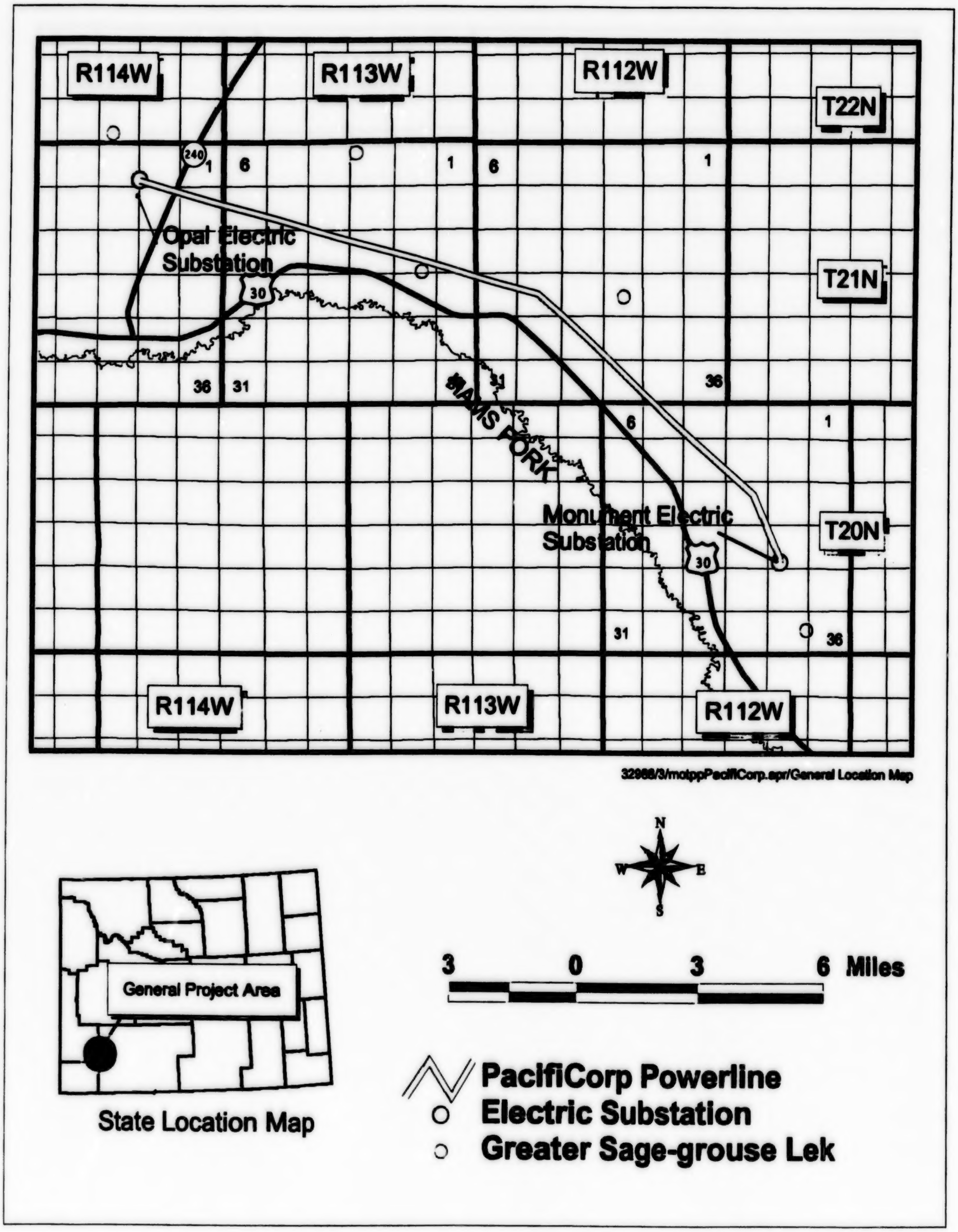


Figure 3.7 Greater Sage-grouse Leks.

Table 3.4 Lek Attendance by Male Greater Sage-grouse.

Lek Location	Source of Data	Approximate Distance from Proposed ROW (mi)	Year					
			1998	1999	2000	2001	2002	2003
Section 14, T21N, R113W	WGFD/BLM	0.25	0	0	0	0	0	0
Section 35, T20N, R112W	WGFD/BLM	1.71	0	9	2	0	0	0
Section 22, T21N, R112W	BLM	1.30	NC[1]	NC[1]	NC[1]	NC[1]	0	0
Section 3, T21N, R113W	BLM	2.00	10	9	6	0	0	0
Section 34, T22N, R114W	WGFD	1.25	0	0	0	NC[1]	0	NC[1]

[1] NC = lek not checked.

sage-grouse. This management area had the fourth largest greater sage-grouse harvest in 2001 of the 45 greater sage-grouse management areas in Wyoming (WGFD 2002a).

Burrowing owl (*Athene cunicularia*) is an uncommon summer resident in Wyoming and generally inhabits prairie grassland, desert, and shrub steppe ecosystems throughout a majority of the state (Johnson and Anderson 2002; USGS 1996; WGFD 1999). Nesting burrowing owls have been found in several areas of the BLM Kemmerer Field Office; however, none were known to exist prior to 2003 near the powerline ROW (BLM n.d.). In the spring of 2003, as a result of raptor surveys associated with the construction of the MOTPP, an active burrowing owl nest was located within a white-tailed prairie dog town located near the powerline ROW. While not specifically fossorial, burrowing owls utilize inactive burrows of numerous species such as prairie dogs (black-tailed and white-tailed), badgers, ground squirrels, marmots, skunks and kangaroo rats. Burrowing owls select vacant burrows that are surrounded by vegetation in early successional stages. Burrowing owls feed on a wide variety of animals and vegetation; however, they feed primarily on invertebrates such as beetles, grasshoppers, crickets, and dragonflies, and they have been documented preying on small mammals (such as mice, voles, and other rodents), reptiles, amphibians, songbirds, and carrion (Johnson and Anderson 2002; Armbruster 1983; MacCracken et al. 1985). In Wyoming, one study documented that insects made up approximately two-thirds of the prey items taken, and the other one-third of prey items taken were small mammals such as rodents (Johnson and Anderson 2002). Population declines are due to loss of habitat to urbanization and conversion of native grasslands to crop lands to taller, non-native grasslands, or the removal of prairie dogs and ground squirrels (Nicholoff 2003).

Sage thrashers (*Oreoscoptes montanus*) are a common summer resident of major portions of Wyoming and are sagebrush-obligate species (Nicholoff 2003; WGFD 1999). They build their bulky cup nest of coarse twigs, forbs, and grass in dense stands of sagebrush. Sage thrashers feed on insects and fruit from the ground and consume large numbers of grasshoppers and Mormon crickets. Population declines are due to habitat fragmentation and removal (Nicholoff 2003).

Loggerhead shrikes (*Lanius ludovicianus*) are a common summer resident in major portions of Wyoming, and they typically nest in low trees or shrub in pine-juniper, woodland-chaparral, basin prairie, and mountain-foothills shrubland habitats (USGS 1996; WGFD 1999). The project area contains limited suitable nesting habitat for loggerhead shrikes. Loggerhead shrikes have been documented nesting in latilong 22 which includes the project area (WGFD 1999); however, there are no records of loggerhead shrike nesting in the immediate project area (WNDD 2003). Loggerhead shrikes are opportunities carnivores and highly predatory and they feed primarily on large insects but they will also take small mammals, birds, and carrion (Armbruster 1983; Nicholoff 2003). Loggerhead shrikes generally forage and hunt in open and semi-open habitats, and they primarily perch/hunt from fence posts or shrubs that are generally 4-10 ft above the ground, where they pounce on their prey and then quickly return to their perch (USGS 1996; Yosef 1996). Population declines are due to habitat loss and conversion from cultivation and urbanization, loss of insect prey due to pesticides use, and pesticide contamination (Nicholoff 2003).

Brewer's sparrows (*Spizella breweri*) are a common summer resident in majority of Wyoming and a sagebrush-obligate species, and they typically nest in shrubs (Nicholoff 2003; USGS

1996; WGFD 1999). Brewer's sparrows have been documented nesting in latilong 22 which includes the project area (WGFD 1999); however, there are no records of Brewer's sparrows nesting in the immediate project area (WNDD 2003). Brewer's sparrow usually feeds on insects and seeds gleaned from the ground. Population declines are due to fragmentation of removal of sagebrush habitats (Nicholoff 2003).

Sage sparrows (*Amphispiza billineata*) are a common summer resident in portions of Wyoming and a sagebrush-obligate species, and they typically nest in shrubs (Nicholoff 2003; USGS 1996; WGFD 1999). Sage sparrows have been documented nesting in latilong 22 which includes the project area (WGFD 1999); however, there are no records of sage sparrows nesting in the immediate project area (WNDD 2001). Sage sparrow usually feeds on insects and seeds gleaned from the ground and low vegetation. Population declines are due to fragmentation of removal of sagebrush habitats (Nicholoff 2003).

4.0 ENVIRONMENTAL CONSEQUENCES

4.1 INTRODUCTION

In accordance with 40 C.F.R. 1502.16, this chapter of the EA includes a discussion of the potential environmental consequences of the Proposed Action and the No Action Alternative on each of the affected resources. An environmental impact is defined as a change in the quality or quantity of a given resource due to a modification in the existing environment resulting from project-related activities. Impacts may be beneficial or adverse, may be a primary result (direct) or secondary result (indirect) of an action, and may be permanent and long-term or temporary and of a short duration. Impacts may vary in degree from a slightly discernible change to a total change in the environment. Potential direct impacts of the Proposed Action would not be altered or changed from the MOTPP EA (BLM 2002a) completed for this project, and a discussion of direct impacts will not be repeated in this document. The reader is encouraged to refer to that document for details of direct impacts of the Proposed Action. Therefore, this section of the EA will only address indirect impacts of the Proposed Action.

Cumulative impacts are discussed in Section 4.3, irreversible and irretrievable commitments of resources are discussed in Section 4.4, and short-term use of the environment versus long-term productivity is discussed in Section 4.5.

Pygmy rabbit, greater sage-grouse, sage thrasher, Brewer's sparrow, and sage sparrow (all BLM-sensitive species) are highly dependant upon the presence of sagebrush plant communities (Clark and Stromberg 1987; Nicholoff 2003). Sagebrush plant communities across the West have been greatly altered by a century of settlement, industrial development, livestock grazing, agriculture, weed invasion, and changes in wildfire frequency. In the intermountain West, more than 50% of grassland and shrubland bird species show downward population trends (Nicholoff 2003).

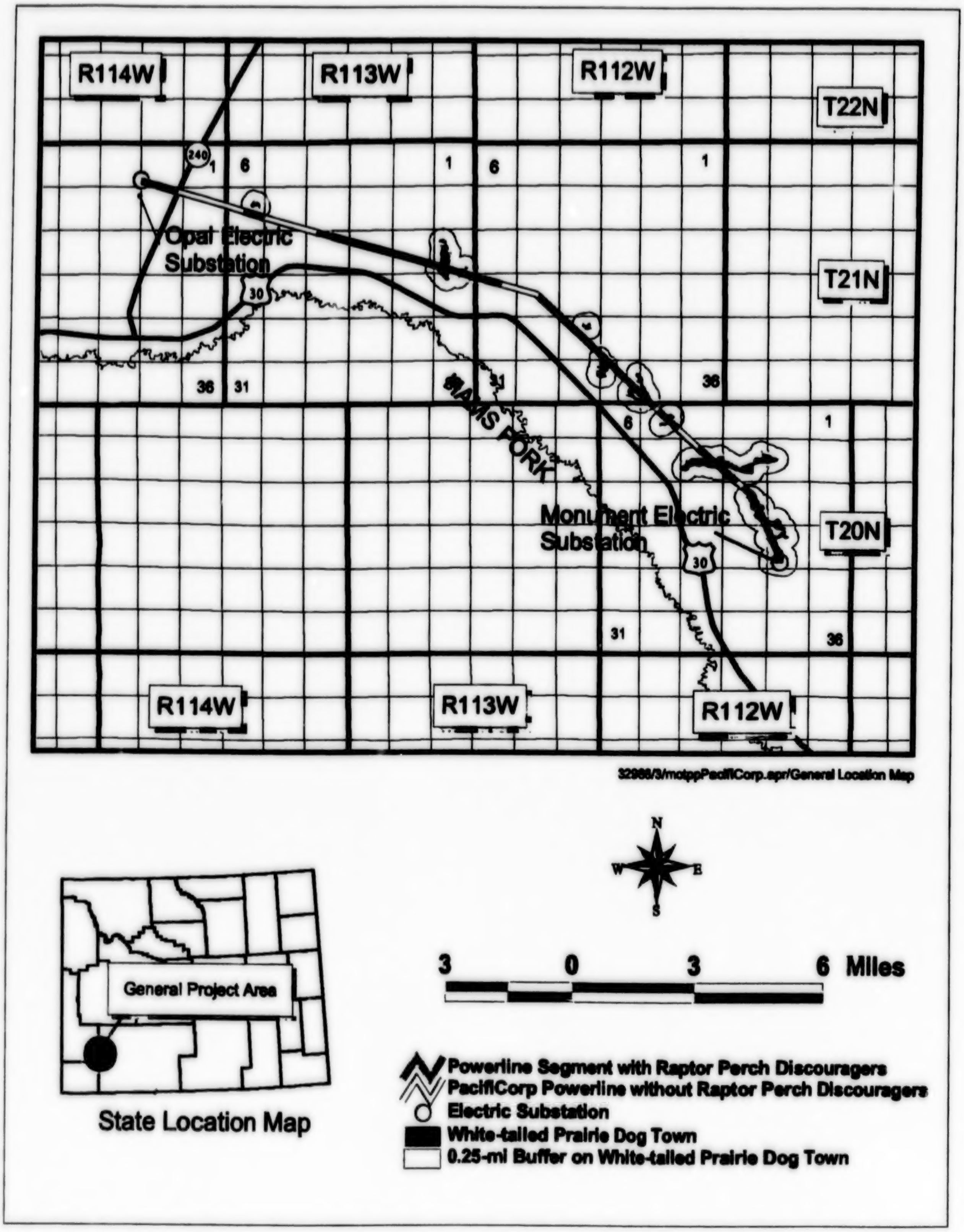
4.2 TEP&C AND BLM-SENSITIVE SPECIES

4.2.1 Proposed Action

4.2.1.1 TEP&C Species

Black-footed Ferret. Black-footed ferret surveys were completed in 2002 for the proposed project area, and no black-footed ferrets or their sign was observed. In addition to the other mitigation measures specified in the original EA (BLM 2002a), PacifiCorp would install raptor perch discouragers on all new powerline structures located within 0.25 mi of any white-tailed prairie dog town. The raptor perch discouragers would minimize impacts of raptors preying on white-tailed prairie dogs--the primary food source of black-footed ferrets (refer to Figure 4.1).

Raptor perch discouragers (already installed on the 95 of the powerline structures associated with the MOTPP) will minimize potential impacts to black-footed ferrets within 0.25 mi of white-tailed prairie dog town. It is possible that black-footed ferrets moving between prairie dog white-tailed towns (i.e., occur more than 0.25 mi away from the white-tailed prairie dog towns) would increase their risk of being preyed upon by raptors that perch on the 28 powerline structures that would not be equipped with raptor perch discouragers (i.e., the Proposed Action). White-tailed prairie dog populations and town activity status (i.e., active or inactive) are dynamic due to numerous natural causes and man-made activities. In addition, boundaries of white-tailed prairie dog towns can expand or contract. Therefore, it is possible that over the life of this project the current location and activity status of white-tailed prairie dog towns could vary from current conditions. While it is possible that black-footed ferrets may slightly increase their risk of predation, it is unlikely that any black-footed would be impacted by the Proposed Action because of the absence of suitable habitat (i.e., white-tailed prairie dogs) within the area affected by the Proposed Action and the lack of any black-footed ferret signs or sightings (documented in the black-footed ferret surveys completed for the MOTPP in 2002).


R114W
R113W
R112W
T22N
T21N
T20N
240
1
6
1
6
1
Opal Electric Substation
30
36
31
31
36
HAMS FORK
6
1
Monument Electric Substation
30
31
36
R114W
R113W
R112W
32988/3/motppPacifiCorp.apr/General Location Map
N
W
E
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3
0
3
6 Miles
General Project Area
State Location Map
Powerline Segment with Raptor Perch Discouragers
PacifiCorp Powerline without Raptor Perch Discouragers
Electric Substation
White-tailed Prairie Dog Town
0.25-mi Buffer on White-tailed Prairie Dog Town

Figure 4.1 Raptor Perch Discouragers and White-tailed Prairie Dog Towns and 0.25-Mile Buffer.

Mountain Plover. The mountain plover is proposed for listing under the ESA and, as such, federal agencies are only required to confer with the USFWS if they determine that a proposed project "is likely to jeopardize the continued existence" of such a proposed species (USFWS and National Marine Fisheries Service 1998). In addition, although this step is not required by the ESA or promulgated regulations, BLM is required under BLM Manual 6840 to confer with the USFWS on any action or project that may affect and is likely to adversely affect a proposed species (BLM 2001).

Avian predators that perch on and hunt from transmission powerlines may have adverse indirect impacts on adult and juvenile mountain plovers (Knopf 1996). Common raptors known to nest in the immediate project area include golden eagle, red-tailed hawk, ferruginous hawk, northern harrier, and great horned owl (BLM 2002a). However, according to the scientific literature, the primary avian predators of mountain plover are Swainson's hawk, loggerhead shrike, and prairie falcon (Knopf 1996; personal communication, December 11, 2002, with Fritz Knopf, mountain plover expert, U.S. Geological Survey, Fort Collins, Colorado). There is no scientific literature or evidence that golden eagle, red-tailed hawk, ferruginous hawk, northern harrier, or great horned owl prey on adult or juvenile mountain plover; however, most of these species have been documented to occasionally prey on small birds. Available evidence suggests that the agility and small size of adult and juvenile mountain plovers would allow them to outmaneuver or escape most capture attempts by these species and that these species would not likely pose a threat to adult or juvenile mountain plover (personal communication, December 11, 2002, with Fritz Knopf, mountain plover expert, U.S. Geological Survey, Fort Collins, Colorado). In an August 2002 letter to the BLM Rock Springs Field Office concerning a transmission powerline project in that Field Office area, the USFWS recommended the installation of raptor perch inhibitors on all new power poles to minimize the potential increase in raptor predation on mountain plovers. In addition, in a second letter to the BLM Rock Springs Field Office, the USFWS supported the BLM's requirements to utilize anti-perch devices to protect wildlife species as appropriate under its own authorities. The following information will discuss each avian predator species that is known to prey on mountain plovers (Swainson's hawk, loggerhead shrike, and prairie falcon) and its potential indirect impacts on mountain plover.

Swainson's hawk would pose little or no threat to individual mountain plovers in the project area. Swainson's hawk are a common summer resident in some portions of Wyoming and prey on insects and small mammals (WGFD 1999). Swainson's hawks typically nest in scattered trees within grasslands, shrublands, and agricultural landscapes along streams or in open woodland areas (England et al. 1997). Raptors (including Swainson's hawk) are opportunistic hunters, and numerous factors affect which prey each raptor will attempt to capture; however, it is likely that one of the most important factors is the relative abundance of each prey species that they are adapted to hunting (Williams and Matteson 1973). In other words, the more common the prey species for a specific raptor, the more likely that raptor will attempt to capture the prey item.

According to unpublished BLM geographic information system (GIS) raptor data, the closest known Swainson's hawk nest is located approximately 15 mi northeast of the project area along the Green River. While Swainson's hawk may occasionally forage or migrate through the immediate project area, there are no records of nesting Swainson's hawks within the immediate or adjacent project area. In addition, there are no trees (for Swainson's hawks to nest is located along the Hams Fork River approximately 1.5 to 4.0 mi south of the powerline ROW. While it is possible for Swainson's hawks to occasional capture an adult or juvenile mountain plover, it is unlikely that Swainson's hawks would regularly occur in the immediate project area and would therefore pose little or no threat to adult or juvenile mountain plover or mountain plover populations.

Loggerhead shrikes (a BLM-sensitive species) would pose little or no threat to mountain plovers in the project area. Loggerhead shrike are a summer resident in some portions of Wyoming and typically nest in low trees or shrub in pine-juniper, woodland-chaparral, basin prairie, and mountain-foothills shrubland habitats (WGFD 1997). The project area offers only limited suitable nesting habitat for loggerhead shrikes, and there are no records of loggerhead shrike nesting in the immediate project area (WNDD 2003). Loggerhead shrike generally forage and hunt in open and semi-open habitats, and they primarily perch/hunt from fence posts or shrubs that are generally 4-10 ft above the ground, where they pounce on their prey and then quickly return to their perch (USGS 1995; Yosef 1996). Based on the fact that loggerhead shrike typically hunt from low perches (4-10 ft above the ground), it is unlikely that they would hunt from 60- to 80-ft tall powerline structures. It is also unlikely that loggerhead shrike would regularly occur in the immediate project area because of the limited amount of suitable nesting habitat. While it is possible for loggerhead shrikes to occasional capture an adult or juvenile mountain plover, it is unlikely that they would occur within the project area, and the powerline structures (equipped or not with raptor perch discouragers) would not provide suitable hunting perches. Therefore, loggerhead shrikes would pose little or no threat to adult or juvenile mountain plovers or mountain plover populations.

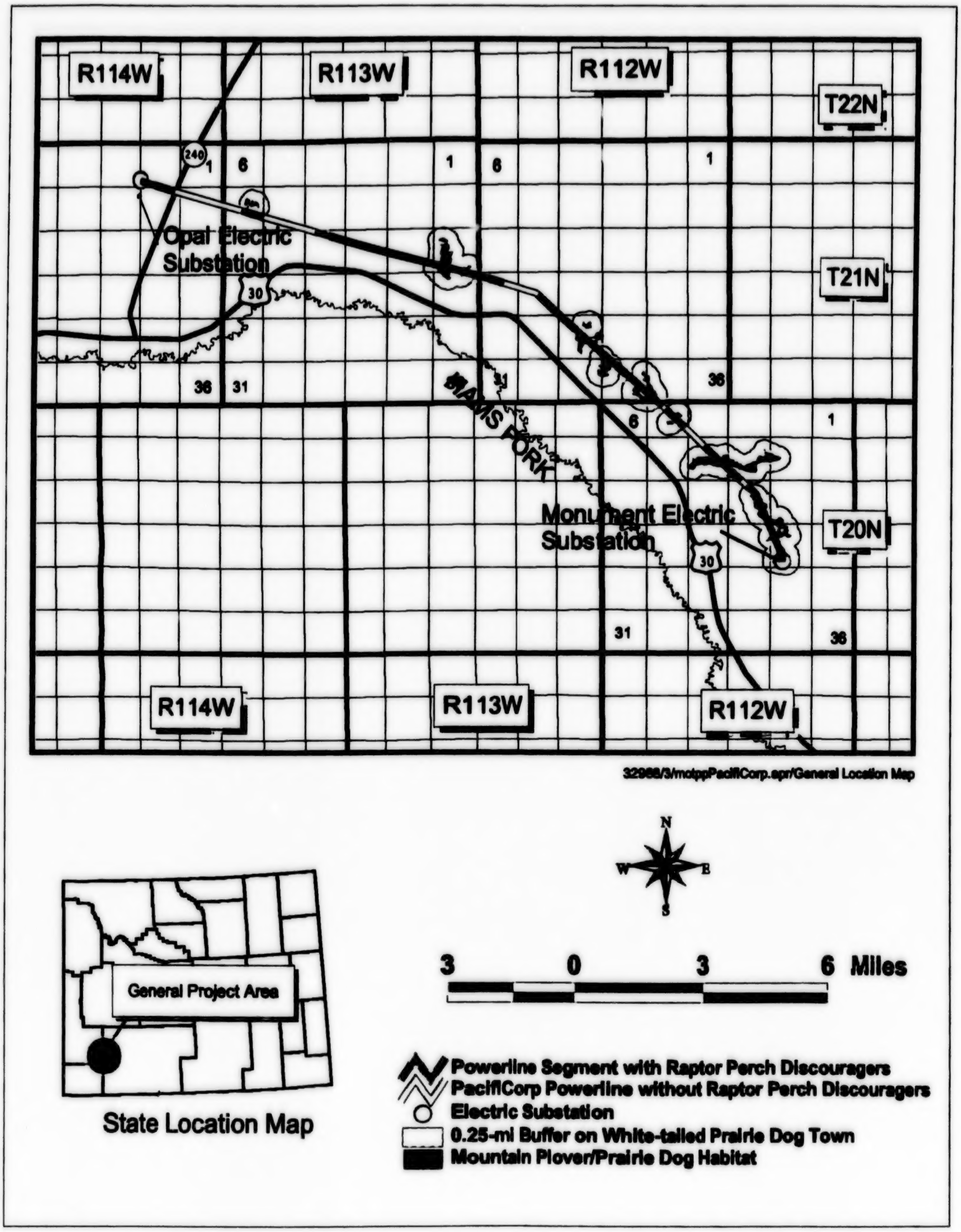
Prairie falcons would pose little or no threat to mountain plover in the project area. Prairie falcons are a common summer resident in some portions of Wyoming, and they typically nest in rock outcrops or ledges and prey on small mammals, small birds, insects, and lizards (WGFD 1997). There are no prairie falcon eyries and only limited suitable nesting habitat for prairie falcon within or immediately adjacent to the project area. Based on BLM unpublished GIS raptor data, the closest known prairie falcon eyrie is located approximately 20 mi southwest of the project area along the cliffs near the Cumberland Gap east of Wyoming State Highway 189. While prairie falcon may occasionally forage or migrate through the immediate project area, there are no records of nesting prairie falcons within the immediate or adjacent project area. Raptor perch discouragers may not be completely effective at preventing prairie falcons from perching on powerline cross arms due to their small size and ability to perch in small areas (personal communication, February 12, 2003, from Field Supervisor, USFWS, Cheyenne, Wyoming, to Lorraine Keith, wildlife biologist, BLM, Rock Springs, Wyoming). In addition, there is limited suitable prairie falcon nesting habitat within or immediately adjacent to the project area. While it is possible for prairie falcon to occasional capture an adult or juvenile mountain plover, it is unlikely that prairie falcon would regularly occur in the immediate project area concurrently with mountain plover. Therefore, prairie falcons would pose little or no threat to adult or juvenile mountain plovers or mountain plover populations.

Based on this discussion, it is unlikely that Swainson's hawk, loggerhead shrike, and prairie falcon would regularly occur in the immediate project area. While it is possible, it is highly unlikely that individual adult or juvenile mountain plovers would be captured and killed by one of these avian predator species. However, these rare events would not pose a threat to mountain plover populations in the immediate project area.

It should also be noted that any long-term changes to mountain plover habitat may result in impacts to the individual mountain plovers. However, no long-term changes to mountain plover habitat would be expected due to the Proposed Action.

Even though Mr. Fritz Knopf (USGS mountain plover expert) does not believe that red-tailed hawks would be a predatory concern for mountain plovers, the BLM is concerned that under the Proposed Action more red-tailed hawks would utilize those powerline structures that would not be equipped with the raptor perch discouragers for hunting perches and possibly nesting sites. As discussed in Chapter 3 of this document, most hunting (60-80%) by red-hawks is done from elevated perches (Preston and Beane 1993). Reliance on this hunting method presumably relates to the relatively low length to width ration of red-tailed hawk wings, making this species poorly adapted for hunting in flight (Preston and Beane 1993). Therefore, prey items would generally need to be relatively close (i.e., <100 m) to the perch site before there would be a significant chance that a red-tailed hawk would attempt to capture the prey item (Preston and Beane 1993).

It is possible that with the implementation of the Proposed Action red-tailed hawks may increase their utilization of that portion of the project area not equipped with raptor perch discouragers for hunting and nesting and may occasionally hunt and prey upon adult or juvenile mountain plovers. However, it should also be noted that due to the other mitigation measures committed to by PacifiCorp, all of the mountain plover nesting habitat would be located at least 180 m (600 ft) from powerline structures that would be equipped with the raptor perch discouragers (refer to Figure 4.2). In addition, red-tailed hawks are generally not agile enough to capture adult or juvenile mountain plover (personal communication, December 11, 2002, with Fritz Knopf, mountain plover expert, U.S. Geological Survey, Fort Collins, Colorado). Therefore, while it is possible, it is unlikely that red-tailed hawks would be able to capture adult or juvenile mountain plovers, and they would not have an adverse affect on the continued existence of the mountain plover.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32988/3/motppPacifiCorp.apr/General Location Map
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6 Miles
General Project Area
State Location Map
Powerline Segment with Raptor Perch Discouragers
PacifiCorp Powerline without Raptor Perch Discouragers
Electric Substation
0.25-mi Buffer on White-tailed Prairie Dog Town
Mountain Plover/Prairie Dog Habitat

Figure 4.2 Raptor Perch Discouragers and Mountain Plover Habitat.

Therefore, based on the discussion presented above, the Proposed Action is unlikely to adversely affect the mountain plover population and would not jeopardize the continued existence of the species.

4.2.1.2 BLM-Sensitive Species

Dwarf Shrew and Idaho Pocket Gopher. The dwarf shrew and Idaho pocket gopher are both small fossorial (i.e., burrowing) mammals that may potentially be present within the area that would be affected by the Proposed Action. If present at all, dwarf shrews would likely be found in the desert shrub plant community and the Idaho pocket gopher would likely be found in the Wyoming big sagebrush plant community; however, there are no records of either of these species being found within 5.0 mi of the project area (WNDD 2003). Clark and Stromberg (1987) report that less than 25 specimens of dwarf shrew are known from Wyoming. While these species would not be directly impacted by the Proposed Action (e.g., physically disturbed or killed by construction equipment), these species may be indirectly impacted due to predation by raptor species that may perch on powerline structures not equipped with the raptor perch discouragers. Raptors are opportunistic hunters, and numerous factors affect which prey each raptor will attempt to capture; however, it is likely that one of the most important factors is the relative abundance of each prey species that the raptors are adapted to hunting (Williams and Matteson 1973). In other words, the more common the prey species of a specific raptor, the more likely that species of raptor will attempt to capture the prey item. Idaho pocket gophers likely spend their entire lives underground, emerging only briefly to cut forbs at the opening of their burrows and to pull these cuttings below (Clark and Stromberg 1987).

While it is possible that raptors may perch on the 28 powerline structures that would not be equipped with the raptor perch discouragers, it is unlikely that the Proposed Action would affected the populations of these species.

Pygmy Rabbit. Pygmy rabbit is a fossorial mammal that may potentially be present within the area that may be affected by the Proposed Action. If present in the project area, the pygmy rabbit would likely be found in the Wyoming big sagebrush plant community (Clark and Stromberg 1987). While this species would not be directly impacted by the Proposed Action (e.g., physically disturbed or killed by construction equipment), this species may be indirectly impacted due to predation by raptor species that may perch on powerline structures not equipped with the raptor perch discouragers. Raptors are opportunistic hunters, and numerous factors affect which prey each raptor will attempt to capture; however, it is likely that one of the most important factors is the relative abundance of each prey species that they are adapted to hunting (Williams and Matteson 1973). In other words, the more common the prey species for a specific raptor, the more likely that species of raptor will attempt to capture the prey item. Pygmy rabbits prefer tall thick sagebrush and spend time in underground burrows as well (Clark and Stromberg 1987), making them less vulnerable to raptor predation. While it is possible that raptors may perch on the 28 powerline structures that would not be equipped with the raptor perch discouragers and may potentially capture individual pygmy rabbits, it is unlikely that the Proposed Action would adversely affected pygmy rabbit populations.

White-tailed Prairie Dog. Raptors that are known to nest in the immediate project area include golden eagle, red-tailed hawk, ferruginous hawk, northern harrier, and great horned owl (BLM 2002a). While white-tailed prairie dogs may occasionally be taken by northern harriers or great horned owls, they are not an important prey item for those species (Heintzelman 1979; Preston and Beane 1993; Terres 1980). On the other hand, prairie dogs are an important prey item for red-tailed hawk, ferruginous hawk, and golden eagle (Bechard and Schmutz 1995; Williams and Matteson 1984). Still-hunting from fixed perches is one of the primary hunting methods utilized by ferruginous hawk (also a designated BLM-sensitive species) and red-tailed hawks (Bechard and Schmutz 1995; Preston and Beane 1993). "Still-hunting" is a term used to describe a hunting technique used by raptors whereby the raptor will sit or perch in one spot, wait for the prey item to move into an open area, and then swoop in on the prey item (directly from the fixed-perch site) in an attempt to capture it. Alternatively, golden eagles hunt primarily by soaring 30-90 m above the ground or by making low, quartering flights often only 7-8 m above the ground. In addition, golden eagles have been documented as occasionally searching from a fixed perch and then flying directly to the prey item (Solano County Water Agency 2002). Therefore, based on this information, it is reasonable to assume that some raptors (i.e., golden eagle, red-tailed hawk, and ferruginous hawk) in the general project area may perch on powerline structures not equipped with raptor perch inhibitors and may occasionally prey upon white-tailed prairie dogs if they occur near the ROW.

Although some raptors may perch on and hunt from powerline structures without perch discouragers, the distance from which raptors would actively hunt white-tailed prairie dogs is influenced by numerous factors. While still-hunting, red-tailed hawks and ferruginous hawks usually fly less than 100 m (0.06 mi) to attempt to capture prey items from a fixed-perch site (Bechard and Schmutz 1995; Preston and Beane 1993). Reliance on this hunting method presumably relates to the relatively low length to width ratio of red-tailed hawk and ferruginous hawk wings, making these species poorly adapted for hunting in flight (Beachard and Schmutz 1995; Preston and Beane 1993). Clearly, red-tailed and ferruginous hawk must perch relatively close (<100 m) to the prey item before they attempt a capture. Beyond this distance, red-tailed and ferruginous hawks lose most of the momentum gained by hunting from the elevated fixed-perch site, and they simply revert to a low-flight hunting method that would not require an elevated fixed perch. The low-flight hunting method is much less efficient because the raptor must constantly expend energy while flying, with little or no opportunity to capture a prey item. Therefore, the still-hunting technique is a much more energy-efficient hunting method than the low-flight hunting method, and red-tailed and ferruginous hawks (like most raptors) will generally attempt to conserve energy while hunting (Bechard and Schmutz 1995; Preston and Beane 1993; Williams and Matteson 1973).

A raptor's ability to see and successfully hunt prey from a fixed perch is specifically affected by the height of the perch (e.g., powerline structure in this case) and the type and extent of both visual and physical obstacles located between the raptor and the prey. In addition, power poles, cross-arm supports, phase conductors, static wires, and guy supports also located on powerline structures within the ROW would interfere with a raptors ability to see, fly, and then to attempt to capture any prey item from extended distances from within or parallel to the powerline ROW. This is not to say that raptors would not hunt prey within or parallel to the powerline; rather, given equally comparable situations, raptors would more likely hunt in areas where they would have a higher probability of success (i.e., capturing the prey item). Given the flight obstacles created by the powerline structures and associated components, raptors would generally be more likely to search and hunt an area located perpendicular from the powerline structures rather than extended distances within or parallel to the ROW. Most of the powerline structures to be constructed for this project will have of potential perch height of less than 80 ft above the ground. In addition, the ROW contains shrubs such as Wyoming sagebrush and greasewood and the surface topography consists of areas of minor and major undulations that will also affect a raptor's ability to see relatively small prey items such as white-tailed prairie dogs. Therefore, the closer the fixed perch site is to a large source of prey items (e.g., large prairie dog town), the more likely the raptor is to perch and attempt to capture the prey item (Bechard and Schmutz 1995).

While still-hunting, ferruginous and red-tailed hawks hunt prey items that are located within 330 ft (100 m) of the elevated fixed-perch sites (Bechard and Schmutz 1995; Preston and Beane 1993). In addition, the elevation of the fixed-perch site on the powerline structures would generally be limited to less than 80 ft, and vegetation and topography (along with the powerline structures and associated hardware) within the powerline ROW would likely cause both visual and flight interference for hawks and other raptors. These factors would likely affect the raptors ability to see and capture prey items while still hunting from the powerline structures from extended distances (i.e., >100 m) within the actual powerline ROW.

Installation of raptor perch discouragers on all powerline structures located within 400 m (0.25 mi) of white-tailed prairie dog towns likely would be adequate to minimize indirect impacts from raptor predation. This is four times the typical maximum distance that most raptors would still-hunt their prey, and this distance would be adequate to protect white-tailed prairie dogs from the majority of indirect impacts (raptor predation) resulting from the construction of the MOTPP. In addition, there is no scientific evidence to suggest that white-tailed prairie dog populations benefit from the installation of raptor perch discouragers on powerline structures located beyond 0.25 mi from the boundary of the town. Installation of raptor perch discouragers within 0.25 mi of all white-tailed prairie dog towns would include approximately 7.75 mi or 42% of the entire MOTPP but would not include any of the area included in the Proposed Action (area where raptor perch discouragers will not be installed) (refer to Figure 4.1). White-tailed prairie dog populations and town activity status (i.e., active or inactive) are dynamic due to numerous natural causes and man-made activities. In addition, boundaries of white-tailed prairie dog towns can expand or contract. Therefore, it is possible that over the life of this project the current location and activity status of white-tailed prairie dog towns could vary from current conditions. It is possible that some individual white-tailed prairie dogs may be captured by raptors utilizing powerline structures not equipped with the raptor perch discouraging devices; however, these events would likely be rare and would not have a detrimental impact on white-tailed prairie dog populations.

Ferruginous Hawk. With the implementation of the Proposed Action, it is possible that red-tailed hawks may expand their local range and utilize the powerline structures for hunting, possibly displacing ferruginous hawks from their historic nesting habitat (an indirect impact). Red-tailed hawks are known to nest in a wide variety of natural structures (e.g., cliffs, buttes, and trees) and man-made structures (e.g., buildings, powerline structures, and artificial nest platforms) (Preston and Beane 1993). Red-tailed hawks often harass and are harassed by other buteos including ferruginous hawks, Swainson's hawks, and golden eagles (Preston and Beane 1993). No scientific evidence of a clear non-predatory interspecific dominance of one species over the other exists (Bechard and Schmutz 1995; Preston and Beane 1993).

However, in some situations ferruginous hawks may be the dominant raptor. In one study in Utah, ferruginous hawks appeared to displace nesting red-tailed hawks and Swainson's hawks and to limit the populations of these species in the study area (Snow 1981). There is also evidence of increased nesting success when nesting territories of red-tailed and ferruginous hawks overlap (Bechard and Schmutz 1995).

Red-tailed, ferruginous, and Swainson's hawks have also been documented taking or stealing captured prey away from the other raptor species (Preston and Beane 1993; Bechard and Schmutz 1995).

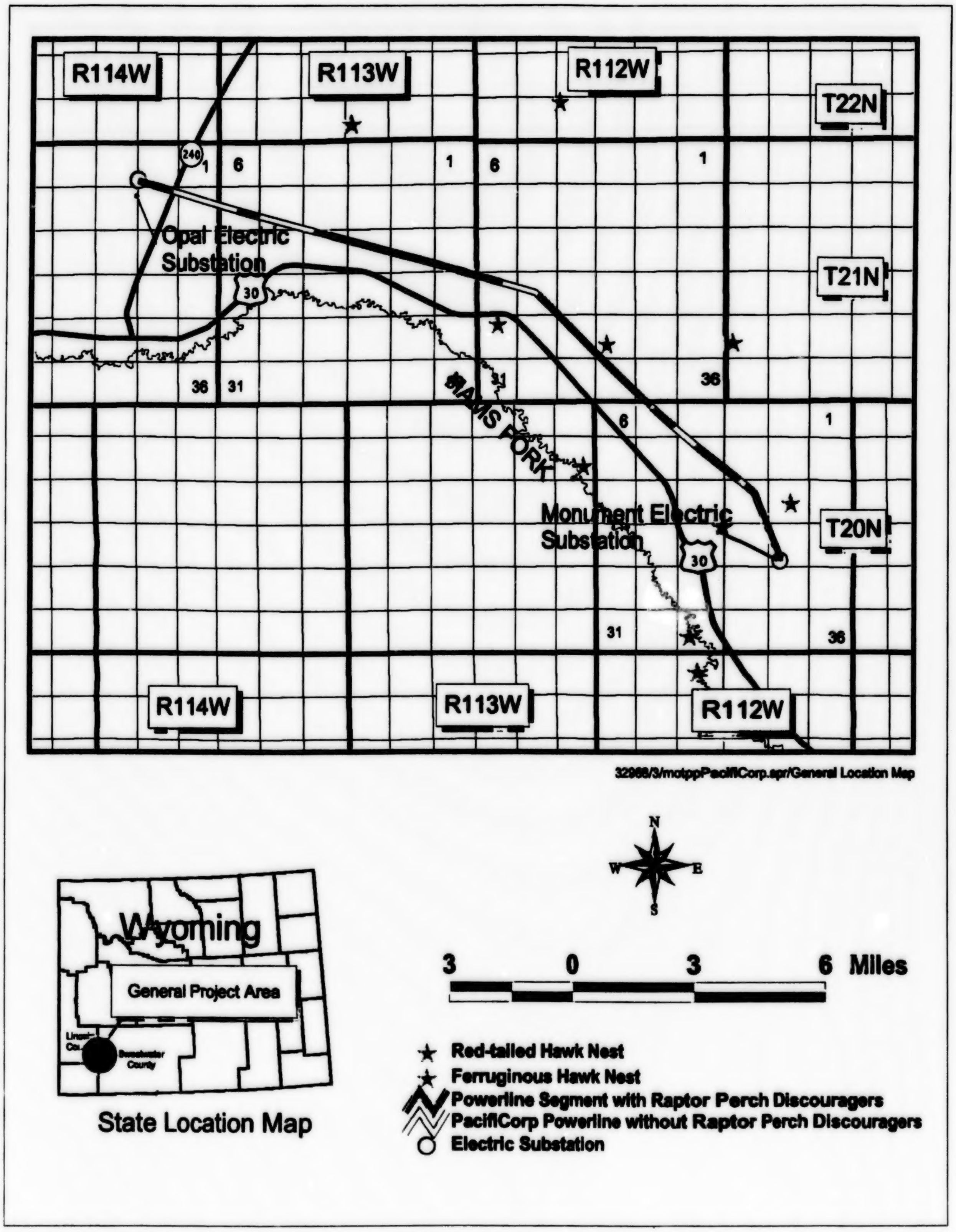


Figure 4.3 Raptor Perch Discouragers and Raptor Nests.

There are eight documented ferruginous hawk nests and two red-tailed hawk nests within 4 mi of the powerline ROW (refer to Figure 4.3). The nearest ferruginous hawk nest is approximately 1 mi from a powerline structure that would not be equipped with the raptor perch discouragers. The nearest documented red-tailed hawk nest is located approximately 2 mi southeast of the project area along the Hams Fork River.

It is possible that some ferruginous hawks may be displaced from historic hunting and nesting areas by red-tailed hawks due to the implementation of the Proposed Action; however, scientific evidence indicates no clear dominance in non-predatory interspecific competition between the two species. In addition, there is much more suitable hunting and nesting habitat for red-tailed hawks located approximately 1.5-4.0 mi south along the entire length of the powerline near the Ham Forks River. Therefore, if red-tailed hawks expand their local range, it would probably occur in this area rather than the area affected by the Proposed Action. The proposed powerline structures that would not be equipped with raptor perch discouragers would provide additional hunting perching sites for both red-tailed hawks and ferruginous hawks, but they would likely not be highly attracted to these areas because the powerline structures would not be located near any current white-tailed prairie dog towns and because of the presence of other elevated hunting perches (e.g., other powerline structures, oil and gas production facilities) in the general area.

Greater Sage-grouse. The Proposed Action may have indirect impacts on individual greater sage-grouse within the MOTPP area. Raptors are known to utilize powerline structures for perching while hunting greater sage-grouse, and greater sage-grouse are more vulnerable to capture by avian predators when they frequent leks during the breeding season (Connelly et al. 2000). Connelly et al. (2000) has recommended that, if powerlines must be located within 1.86 mi (or 3 km) of any greater sage-grouse lek, the powerline structures should be equipped with raptor perch discouraging devices to prevent raptors from perching and hunting from these structures. The RMP for the BLM Kemmerer Field Office does not currently address this issue and does not provide any guidance on raptor perch discouragers for the protection of greater sage-grouse. However, for other projects conducted in southwest Wyoming, the

BLM has set an even more conservative requirement (than the Connelly et al. [2000] 1.86-mi recommendation) for raptor perch discouragers; they specified the installation of raptor perch discouragers on all new powerline structures located within 2 mi of any known greater sage-grouse lek (BLM 1995).

The requirement to place raptor perch discouragers on all new structures within 2 mi of any greater sage-grouse lek would minimize indirect impacts of avian predators preying on greater sage-grouse (Connelly et al. 2000). However, there is no evidence to suggest that greater sage-grouse populations benefit from the installation of raptor perch discouragers on powerline structures located more than 2 mi from the lek. Installation of raptor perch discouragers within 2 mi of all greater sage-grouse leks would include approximately 7.9 mi or 43% of the entire MOTPP but would not include any of the area included in the Proposed Action (area where raptor perch discouragers would not be installed) (refer to Figure 4.4). In addition, since two-thirds of greater sage-grouse hens in Wyoming typically nest within 3 mi of the lek where they were bred, the use of raptor perch discouraging devices would also minimize potential indirect impacts of avian predators on adult nesting and brooding and juvenile greater sage-grouse (WGFD 2002b). The Proposed Action would comply with the 2-mi raptor perch discourager buffer. However, it is possible that raptor predation on greater sage-grouse could occur near powerline structures that would not be equipped with the raptor perch discouraging devices. In addition, greater sage-grouse could avoid using otherwise suitable habitat that is located adjacent to the powerline but more than 2.0 mi from the nearest lek.

The lek located approximately 0.25 mi from the powerline ROW, where birds have not been observed within the past 3 years, would likely remain inactive in the future if the Proposed Action is implemented. This is the same evaluation that was included in the original BLM EA (BLM 2002a) and was based on the fact that the lek was also located within 0.25 mi of active oil and gas wells and associated vehicle access roads and not solely to the presence of the MOTPP. Although there may be some adverse indirect impacts on individual greater sage-grouse, the impacts would not to adversely affect the greater sage-grouse population

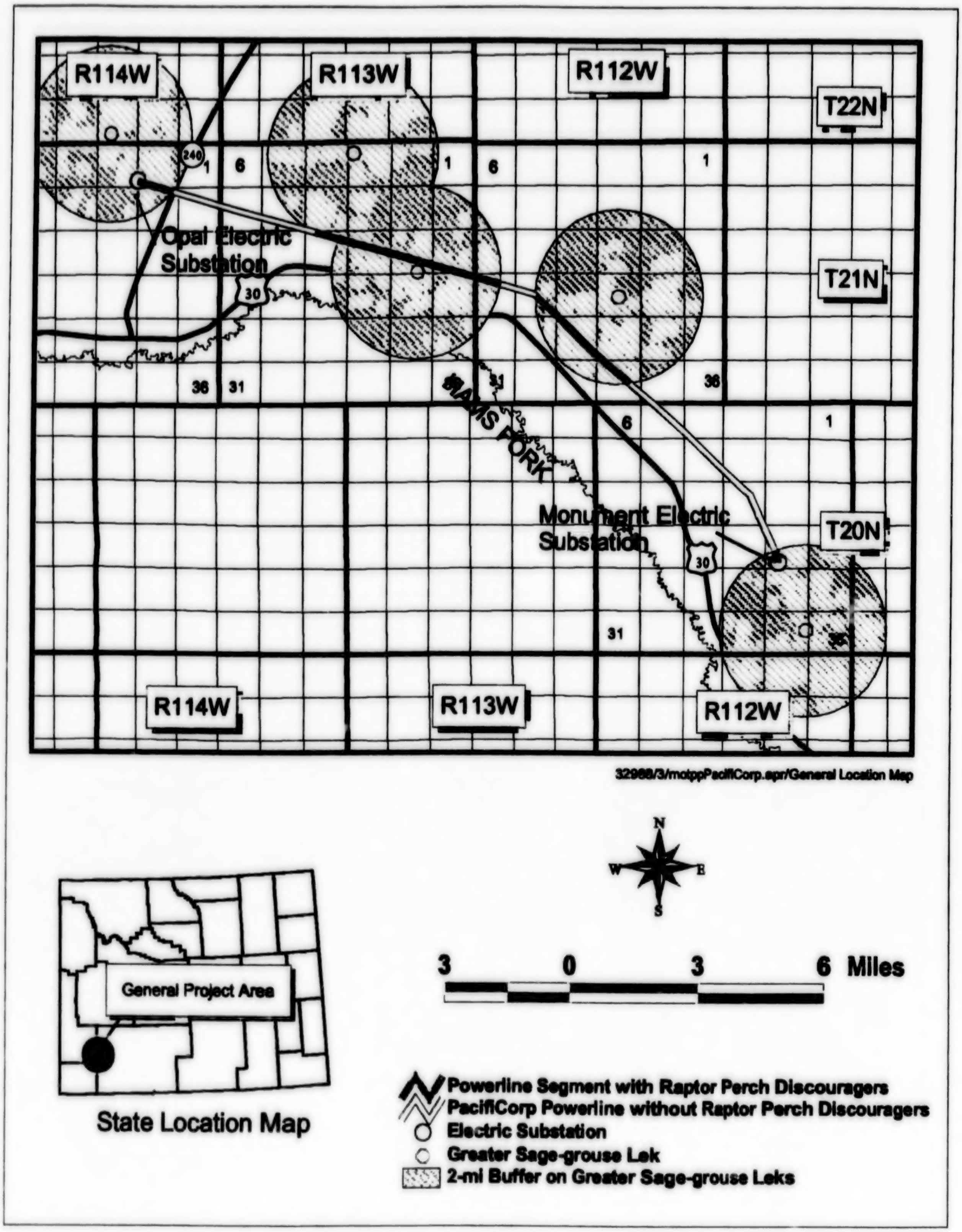


Figure 4.4 Raptor Perch Discouragers and Greater Sage-grouse Leks and 2.0-Mile Buffer Area.

within the WGFD Upland Game Bird Management Area 4. As discussed in Section 3.3.3.2 of this EA, there are several potential reasons for the lack of activity at these four leks including drought, habitat loss, and fragmentation. Once the powerline is constructed, the habitat near the powerline may be less suitable, but it would still be present and essentially undisturbed and some use of the area by greater sage-grouse would likely continue to occur.

Burrowing Owl. There could be increased competition for prey items important to burrowing owls that may result in decreased nesting success with the implementation of the Proposed Action (an indirect impact). The Proposed Action may result in increased use of the powerline structures not equipped with the raptor perch discouragers by red-tailed hawks, which could cause the increased competition. Burrowing owls feed on a wide variety of items including insects, small mammals, small birds, reptiles, amphibians, carrion, and vegetation. In Wyoming, one study documented that insects made up approximately two-thirds of the prey items taken, and the other one-third of prey items taken were small mammals such as rodents (Johnson and Anderson 2002). Red-tailed hawks feed on a wide variety of prey items including small to medium mammals, small birds, and reptiles (Preston and Beane 1993). In Wyoming, red-tailed hawks primarily feed on medium to small mammals, which account for as much as 93% of the prey items taken (Williams and Matteson 1973; Tesky 1994). As a result, there may be some overlap between burrowing owl and red-tailed hawk in small prey items such as mice, voles, and other rodents; however, red-tailed hawks do not feed on insects, and burrowing owls do not feed on medium-sized mammals (such as rabbits, ground squirrels, and rabbits). This demonstrates that both of these species can and do switch from various food sources based on numerous factors and do not rely on any single type of food source. Since burrowing owls feed primarily on insects, this overlap in small mammal prey is not expected to result in any impacts to individual burrowing owls or the burrowing owl population.

Sage Thrasher, Brewer's Sparrow, and Sage Sparrow. It is possible that sage thrasher, Brewer's sparrow, and sage sparrow may potentially be present within the project area and may be affected by the Proposed Action. While these species would not be directly impacted by the Proposed Action (e.g., killed by construction equipment), these species may be indirectly impacted due to increased predation by common raptor species (such as red-tailed hawk, ferruginous hawk, Swainson's hawk, prairie falcon, and golden eagle) common to the project area that may perch on and hunt from powerline structures not equipped with raptor perch discouragers.

The sage thrasher, Brewer's sparrow, and sage sparrow are sagebrush obligate species and common residents to many parts of Wyoming, and they all feed on insects and seeds. Approximately 49% (2.23 mi) of the powerline ROW that may be affected by the Proposed Action is composed of Wyoming big sagebrush plant community. While there are no records of any of these species being sighted within 5 mi of the powerline ROW (WNDD 2003), it is possible that individual birds may occur within the affected portion of the powerline ROW and may potentially be captured by the raptors hunting from the powerline structures not equipped with the raptor perch discouragers. However, while most raptors commonly found in the project area have been documented occasionally capturing small birds, small birds compose only a limited percentage of the prey item taken by red-tailed hawks, Swainson's hawks, ferruginous hawks, and golden eagles (Bechard and Schmutz 1995; England et al. 1997; Preston and Beane 1993; Williams and Matteson 1973). The highest percentage of birds captured by any of these raptors was in a study conducted in southeast Wyoming where birds (such as blackbirds, western meadowlark, ducks, sparrows, sage grouse, and horned lark) made of approximately 32.5% of the prey items captured by Swainson's hawks (Dunkel 1965).

On the other hand, small birds are an important prey item for prairie falcons. In a study in northeast Wyoming, small birds composed approximately 56% of the prey captured by prairie falcons; most of the captured were western meadow lark, horned lark, and lark bunting (Anderson and Squires 1997). In a 3-year study in southwest Wyoming, small birds composed approximately 39% of the prey captured by prairie falcons; most of the birds captured were horned lark, Brewer's blackbird, mourning dove, and lark sparrow (Black Butte Coal Company 1993). The species of birds captured by prairie falcons appeared to be directly related to the relative abundance of the species in the hunting area.

While possible, it is unlikely that red-tailed hawks, Swainson's hawks, ferruginous hawks, or golden eagles would capture any sage thrasher, Brewer's sparrow, and sage sparrow because small birds generally comprise only a limited portion of their diets and because of the low relative abundance of these prey items in the immediate project area. In addition, while the diet of the prairie falcons typically includes more small birds than hawks and eagles, sage thrasher, Brewer's sparrow, and sage sparrow occur in low relative abundance in the project area and would not be expected to be often captured. Therefore, while it is theoretically possible that red-tailed hawks, Swainson's hawks, ferruginous hawks, prairie falcons, or golden eagles may occasionally capture individual sage thrashers, Brewer's sparrows, and sage sparrows, these events would be rare and they would not adversely impact the populations of these species.

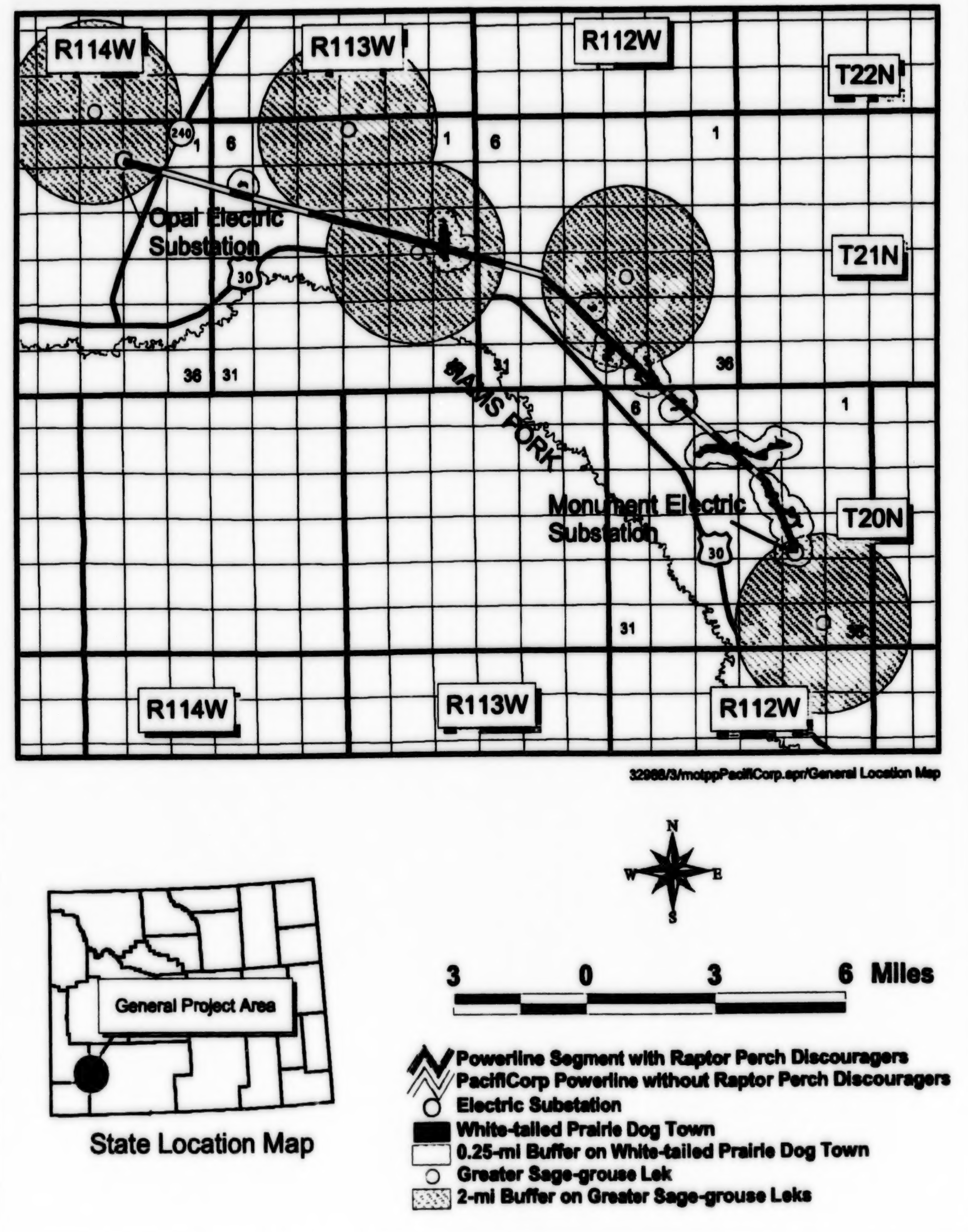
Loggerhead Shrike. There may be increased competition for prey items important to loggerhead shrikes that may result in decreased nesting success with the implementation of the Proposed Action (an indirect impact). Once again, the Proposed Action may result in increased usage of the powerline structures not equipped with the raptor perch discouragers by red-tailed hawks. Loggerhead shrikes are common summer resident found throughout most parts of Wyoming including various shrubland habitats (WGFD 1999; USGS 1996). They are opportunistic carnivores and are highly predatory, and they feed primarily on large insects but they will also take small mammals, birds, and carrion (Armbruster 1983; Nicholoff 2003). Loggerhead shrikes generally forage and hunt in open and semi-open habitats, and they primarily perch/hunt from fence posts or shrubs that are generally 4-10 ft above the ground, where they pounce on their prey and then quickly return to their perch (USGS 1995; Yosef 1996). Red-tailed hawks feed on a wide variety of prey items including small to medium mammals, small birds, and reptiles (Preston and Beane 1993). In Wyoming, red-tailed hawks primarily feed on medium to small mammals, accounting for as much as 93% of the prey items taken (Williams and Matteson 1973; Tesky 1994). As a result, there may be some overlap in small prey items such as mice, voles, and other rodents; however, red-tailed hawks do not feed on insects and loggerhead shrikes do not feed on medium-sized mammals (such as rabbits, ground squirrels, and rabbits). This demonstrates that both of these species can and do switch from various food sources based on numerous factors and do not rely on any single type of food source. Since loggerhead shrikes feed primarily on insects, this overlap in small mammal prey is not expected to result in any displacement of individual loggerhead shrikes that may occur in the project area or impacts to the loggerhead shrike population.

4.2.1.3 Summary

As discussed above, the Proposed Action may result in a minimal increased risk of capture by raptors of individual black-footed ferrets and mountain plovers and BLM-sensitive species addressed in this EA; however, there would be no adverse impacts to the population of any of the species addressed in this EA. In addition, the installation of raptor perch discouragers would mitigate and limit the impacts to these species. All new powerline structures located within 2 mi of greater sage-grouse leks and 0.25 mi of white-tailed prairie dog towns would be equipped with raptor perch discouragers. The use of perch discouragers in these areas is part of the original project approved by the BLM and would not be altered under the Proposed Action. The combined location of these areas (i.e., greater sage-grouse and white-tailed prairie dog buffers) along the MOTPP is illustrated on Figure 4.5 and indicates the linear segments of powerline that would be equipped with the raptor perch discouragers (regardless of the outcome of the analysis presented in this EA) and includes approximately 77% of the entire length of the MOTPP or 95 new powerline structures. Figure 4.5 also illustrates all new powerline segments that are located more than 2 mi from greater sage-grouse leks and 0.25 mi from white-tailed prairie dog towns. These are the areas/powerline structures specified in the Proposed Action that would not be equipped with the raptor perch discouragers. This includes approximately 23% of the entire length of the MOTPP or 28 new powerline structures.

4.2.2 No Action Alternative

Under the No Action Alternative, the BLM would deny the ROW amendment application, and construction of the proposed powerline would occur as specified in the original EA (i.e., raptor


R114W
R113W
R112W
T22N
T21N
T20N
240
1
6
1
6
1
Opal Electric Substation
30
36
31
31
36
6
1
HAMS FORK
Monument Electric Substation
30
31
36
R114W
R113W
R112W
32988/3/motppPacifiCorp.apr/General Location Map
N
W
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3
0
3
6 Miles
General Project Area
State Location Map
Powerline Segment with Raptor Perch Discouragers
PacifiCorp Powerline without Raptor Perch Discouragers
Electric Substation
White-tailed Prairie Dog Town
0.25-mi Buffer on White-tailed Prairie Dog Town
Greater Sage-grouse Lek
2-mi Buffer on Greater Sage-grouse Leks

Figure 4.5 Powerline Segments With and Without Raptor Perch Discouragers.

perch discouragers would be installed on all powerline structures associated with the MOTPP) or PacifiCorp may decide to pursue the preparation of an environmental impact statement (as allowed under NEPA). Under the No Action Alternative, indirect impacts to federal TEP&C species (such as black-footed ferrets and mountain plovers) and BLM-sensitive species would continue as described in the MOTPP EA (BLM 2002a). Under the No Action Alternative, some indirect impacts such as predation of mountain plovers, white-tailed prairie dogs, dwarf shrew, Idaho pocket gopher, burrowing owl, greater sage-grouse, sage thrasher, sage sparrow, and Brewer's sparrows by raptors may occur but to a lesser degree than under the Proposed Action. This is due to the fact that raptor perch discouragers would be installed on all new powerline structures; however, there is no scientific evidence to suggest that the raptor perch discouragers would be completely effective at eliminating all raptor predation on federal TEP&C and BLM-sensitive species discussed in this EA. Therefore, some individuals for these prey species may be captured by raptors regardless of whether the raptor perch discouragers would be installed.

As noted above, the greater sage-grouse lek that is located approximately 0.25 mi from the powerline may remain inactive in the future even under the No Action Alternative. This lek would likely continue to be impacted not only by the new powerline but by natural factors, existing industrial development, and other existing linear projects (such as roads, powerlines, and pipelines) in the immediate area.

4.2.3 Residual Impacts

Under the Proposed Action, there may be a slight increase in mortality and displacement (i.e., adverse residual impacts) to individual TEP&C species and BLM-sensitive prey species discussed in this EA. It is possible, but unlikely, that some of the discussed prey species would be taken by raptors perched on powerline structures that were not equipped with raptor perch discouragers. In addition, there may be an increased level of non-predatory interspecific territorial competition between ferruginous hawks and other raptors such as red-tailed hawks, Swainson's hawks, and golden eagles. However, these events would be rare and would not have a detrimental impact on any of the species' populations.

While the Proposed Action would not have any detrimental impacts on the TEP&C and BLM-sensitive prey populations, it may encourage or promote increased usage of areas that would not be equipped with raptor perch discouragers by raptors including the BLM-sensitive ferruginous hawk. The prey items captured by raptors would likely be proportional to the relative abundance of the prey species for the specific species found near the powerline structures; therefore, small to medium-sized prey species that are common such as deer mice (*Peromyscus maniculatus*), Wyoming ground squirrel (*Spermophilus elegans elegans*), thirteen-lined ground squirrel (*Spermophilus tridecemlineatus*), and Nuttail's cottontail rabbit (*Sylvilagus nuttallii*) would likely be captured more often than less common species with small local populations. The Proposed Action may improve hunting and nesting success for all nesting raptors in the immediate area (including the ferruginous hawk) where the raptor perch discouragers would not be installed by providing additional hunting perches and nesting sites.

4.2.4 Mitigation

No additional mitigation is recommended.

4.3 CUMULATIVE IMPACTS

Cumulative impacts result from the incremental impacts of an action added to other past, present, and reasonably foreseeable future actions, regardless of who is responsible for such actions. Cumulative impacts may result from individually minor, but collectively significant, actions occurring over a period of time (40 C.F.R. 1508.7).

The general project area has been utilized continuously for agricultural purposes (i.e., livestock grazing) and oil and gas development since the early 1900s and was wildlife habitat prior to that time. However, the natural environment of the general project area remains largely undisturbed by human-related activities such as ranching, grazing, and mineral development. There are numerous producing oil and gas wells, pipelines, and powerlines within and adjacent to the project area. These include several distribution powerlines and three existing transmission powerlines--one 345-kV powerline located between 0.8 and 6.9 mi north of the proposed ROW, a 230-kV powerline that the proposed project would connect along the south project boundary, and a 230-kV powerline that the proposed project would connect with along the western project boundary. The ROW would also be located immediately adjacent to or within the Opal Bench, Whiskey Butte, and Fabian Ditch oil and gas fields in eastern Lincoln County (BLM 1985). These existing developments and utility and pipeline projects do not appear to currently have a significant impact on the existing environment. There are no other large-scale industrial or commercial developments such as quarrying operations, logging activities, or other industrial developments within the general project area. In addition, the BLM is unaware of any planned or reasonably foreseeable future actions within the general project area that would contribute any additional cumulative impacts.

Existing distribution and transmission lines surrounding the project area, along with oil and gas development (including pipelines), have likely had some impacts on individual mountain plovers and BLM-sensitive species. These facilities and structures have created numerous perches for avian predators of greater sage-grouse and white-tailed prairie dogs in an otherwise open landscape where historically few high-profile perching spots existed. Because greater sage-grouse may avoid nesting in proximity to gas field roads (Lyon 2000), the extensive road network built to support the oil and gas development may have decreased the amount of effective habitat available to greater sage-grouse. The Proposed Action would not contribute to the incremental degradation or fragmentation of mountain plover, greater sage-grouse, ferruginous hawk, black-footed ferret, burrowing owl, and white-tailed prairie dog habitat in this area because these habitats would be protected by installation of the raptor perch discouragers or suitable habitat would not be affected. However, the Proposed Action would contribute to limited habitat degradation and fragmentation for dwarf shrew, Idaho pocket gopher, pygmy rabbit, sage thrasher, Brewer's sparrow, sage sparrow, and loggerhead shrike by permitting raptors to perch on powerline structures not equipped with raptor perch discouragers. These effects would be most pronounced adjacent to the western portion of the proposed ROW, which is relatively undeveloped compared to the eastern two-thirds of the powerline ROW. However, because the Proposed Action would be constructed within or adjacent to several exiting linear disturbance (e.g., roads, pipelines, and powerlines), the Proposed Action would contribute little to cumulative impacts to TEP&C and BLM-sensitive species.

All environmental resources discussed in this EA have been evaluated for cumulative impacts in accordance with BLM directives (BLM 1994). It has been determined that cumulative impacts would be nonsignificant because there are no past, present, or reasonably foreseeable future actions, when combined with the Proposed Action, that would result in impacts beyond those that already exist or have already been identified and discussed in Chapter 4.0 of this EA.

4.4 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

An irreversible and irretrievable commitment of resources is defined as a permanent reduction or loss of a resource that, once lost, cannot be regained. The primary irreversible and irretrievable commitment of resources due to the Proposed Action would be possible loss of some individual animals discussed in this EA due to possible raptor predation or competition. While the Proposed Action may result in the loss of some individual animals, the Proposed Action would not have any impacts on any the specific populations addressed in this EA.

4.5 SHORT-TERM USE OF THE ENVIRONMENT VERSUS LONG-TERM PRODUCTIVITY

For purposes of this EA, short-term use of the environment is that use during the life of the project (i.e., approximately 50 years or more), whereas long-term productivity refers to the period of time after the project has been completed and removed and the area is reclaimed and stabilized. For the Proposed Action, short-term use of environment would not affect the long-term productivity of the proposed project area.

5.0 RECORD OF PERSONS, GROUPS, AND GOVERNMENTAL AGENCIES CONTACTED

Table 5.1 Record of Persons, Groups, and Governmental Agencies Contacted.

Company/Agency	Individual	Discipline/Position
PacifiCorp	Hebert Roose	Project Manager
	Erik Grill	Property Agency
	Jim Burruss	Lead Environmental Analyst

Table 5.2 List of Preparers.

Firm/Company	Name	EA Responsibility
TRC Mariah Associates Inc.	Scott Kamber	Project Management/EA Preparation/ Quality Control
	Roger Schoumacher	EA Preparation/Quality Assurance
	Genial DeCastro	Document Production/Quality Control
	Tamara Linse	Technical Editing/Document Production
Bureau of Land Management, Interdisciplinary Team, Kemmerer Field Office	Dave Murphy	Assistant Field Manager
	Lara Oles	Wildlife Specialist
	Kelly Lamborn	Project Manager, Lands/Realty Specialist

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END

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